

FIG. 1A

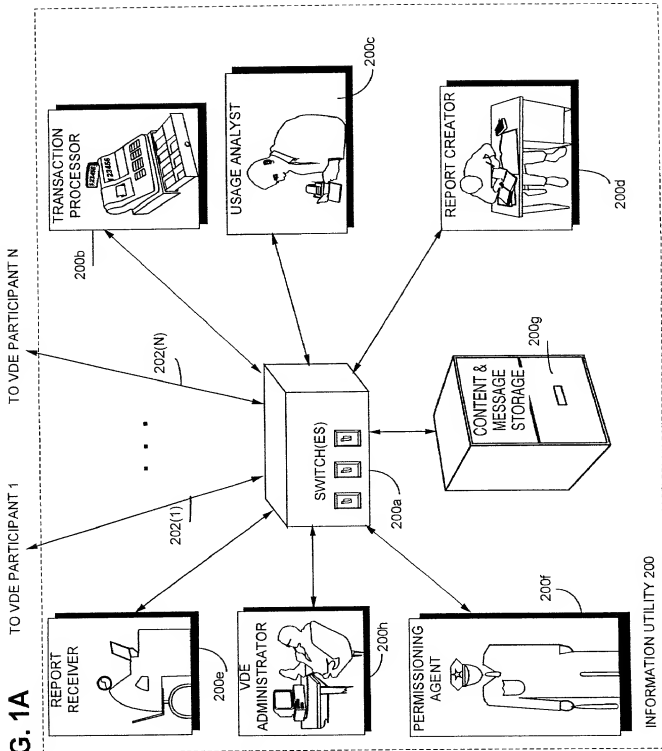
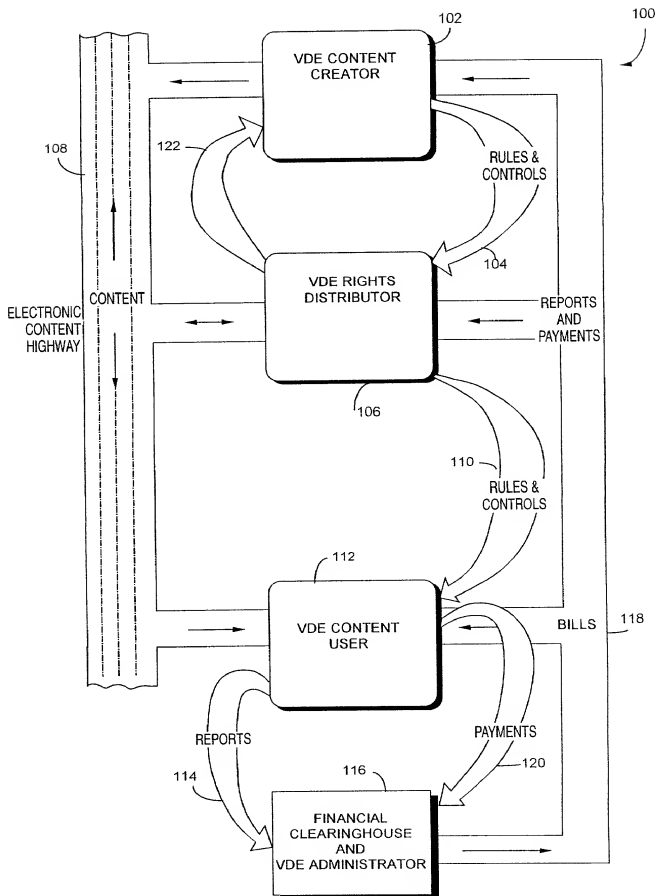


FIG. 2



09370001 000504
105000 10002600

FIG. 2A

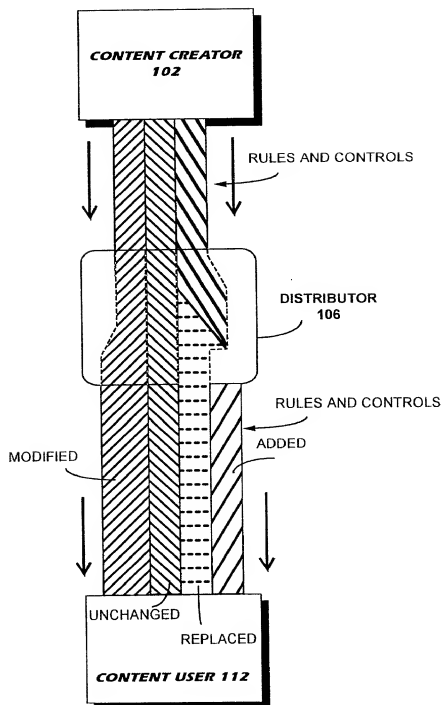
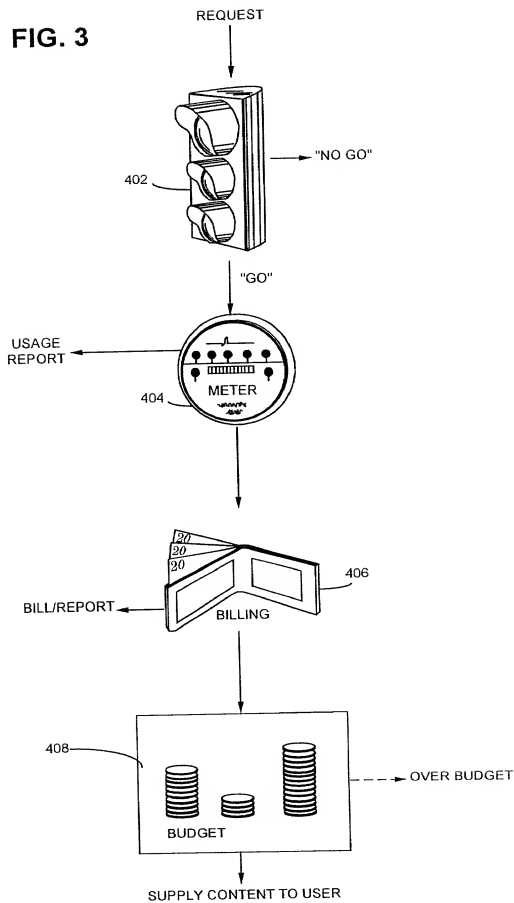


FIG. 3



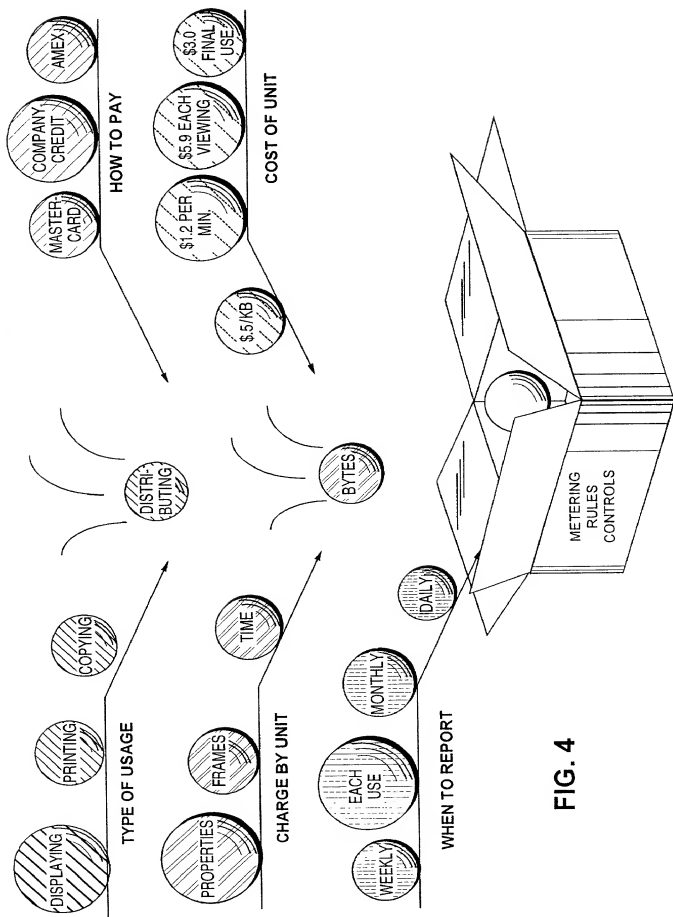


FIG. 4

FIG. 5A

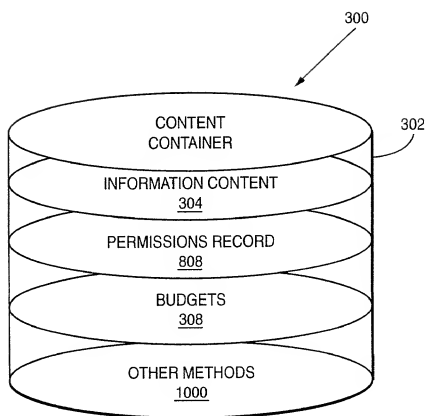
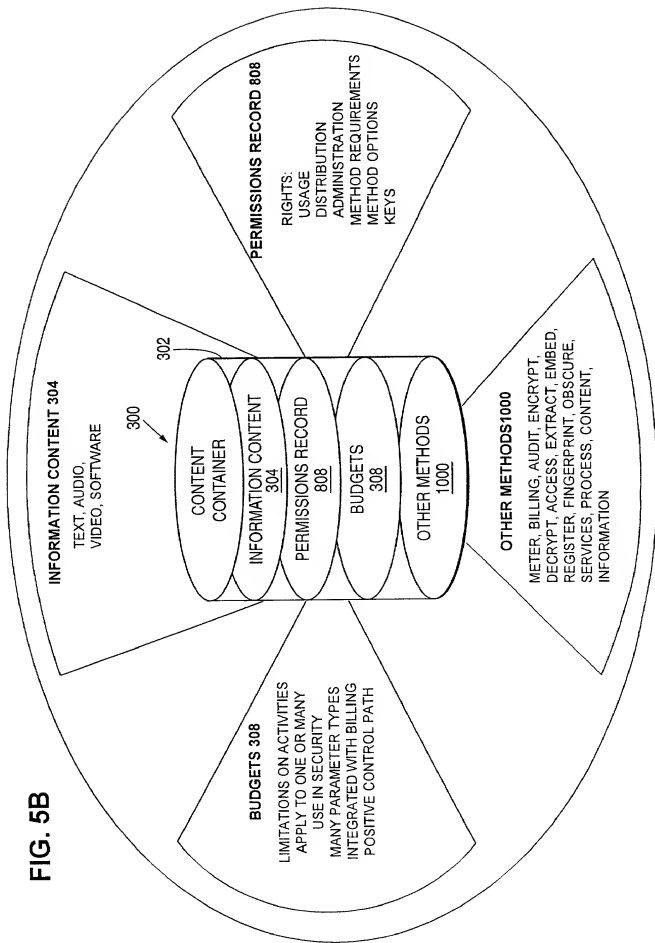
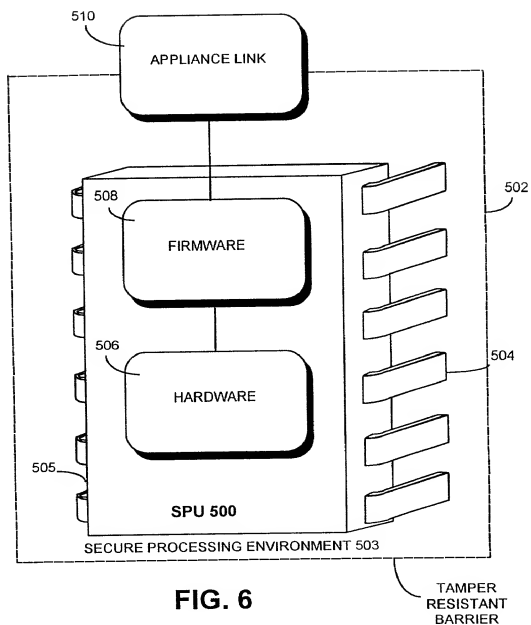


FIG. 5B





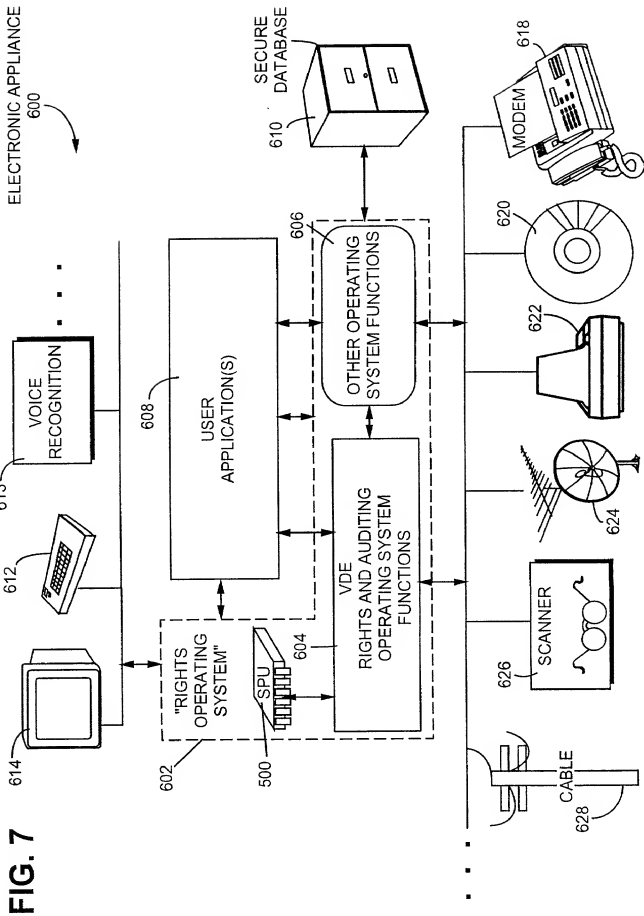
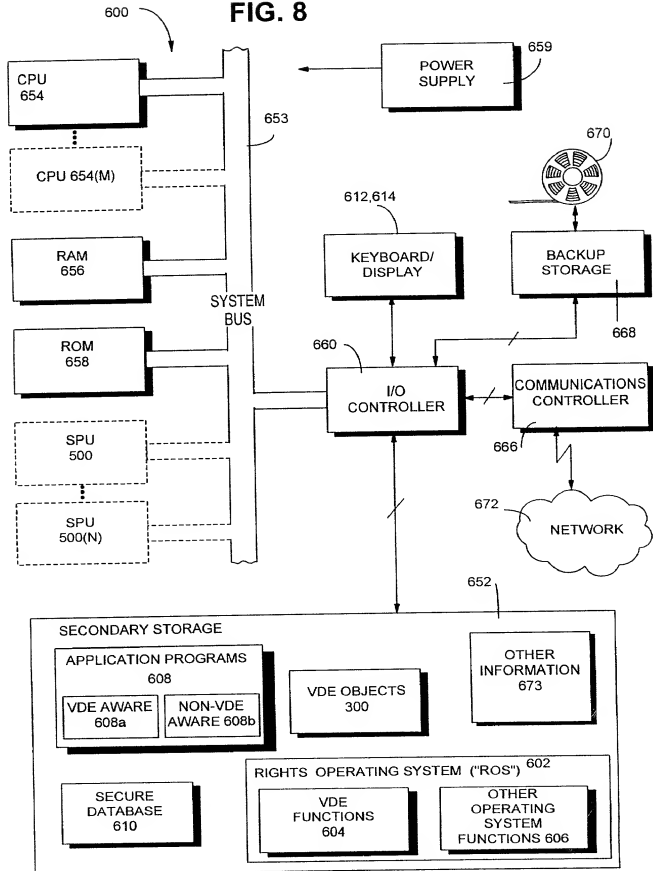


FIG. 8



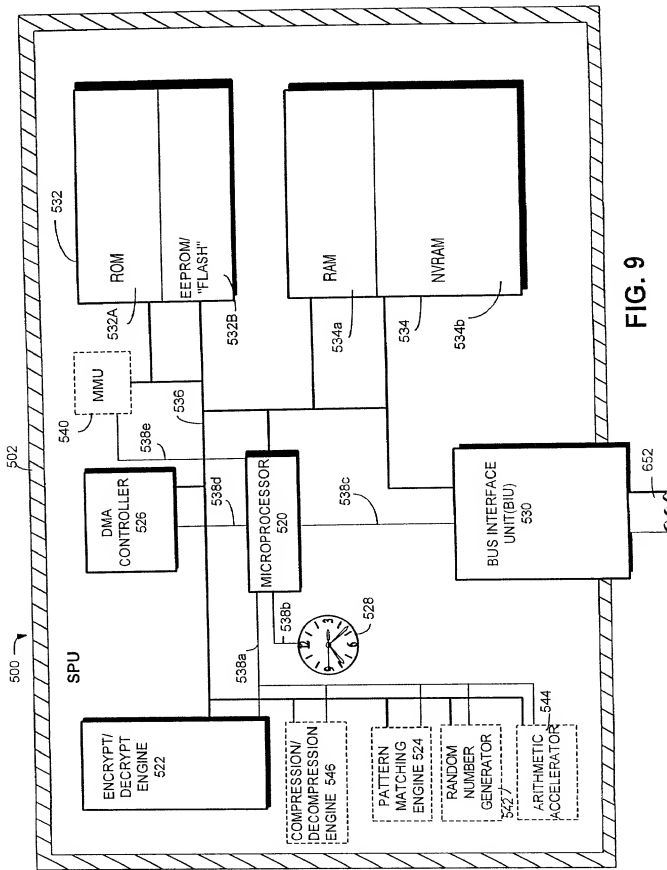


FIG. 9

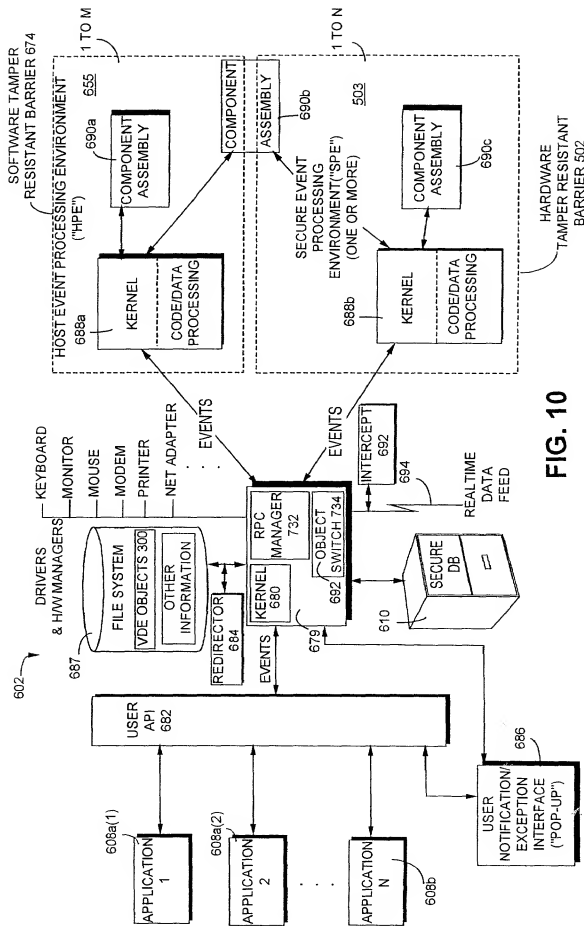


FIG. 10

FIG. 11C

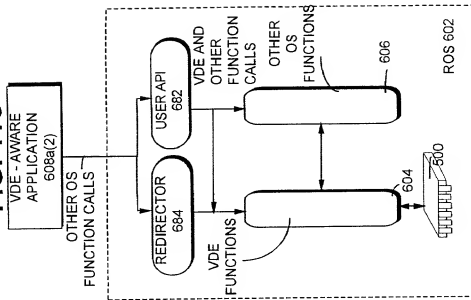


FIG. 11B

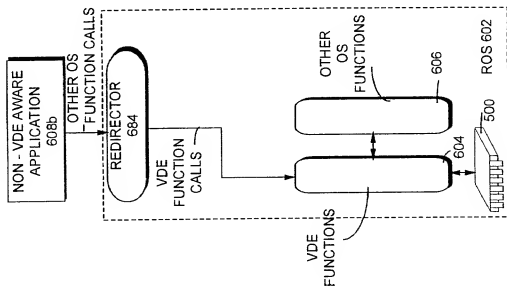
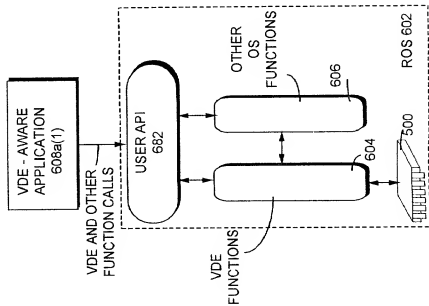


FIG. 11A



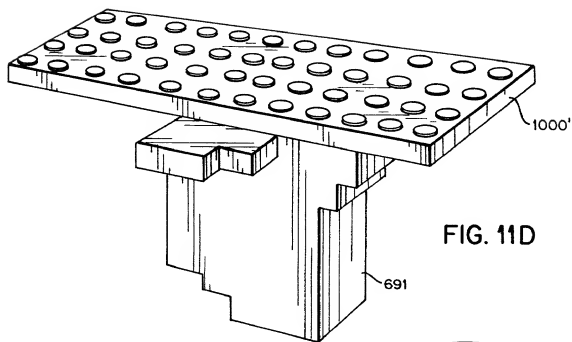


FIG. 11D

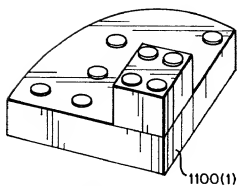


FIG. 11E

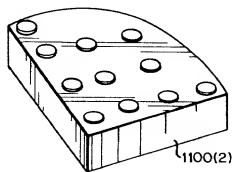


FIG. 11F

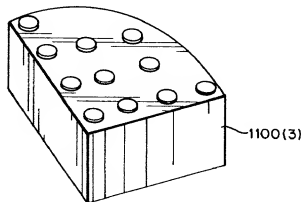


FIG. 11G

FIG. 11H

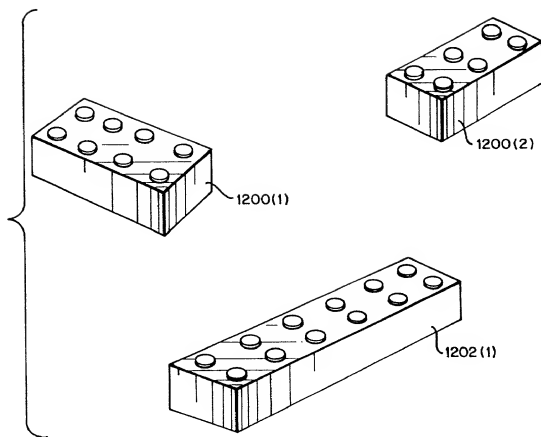


FIG. 11H

FIG. 11I

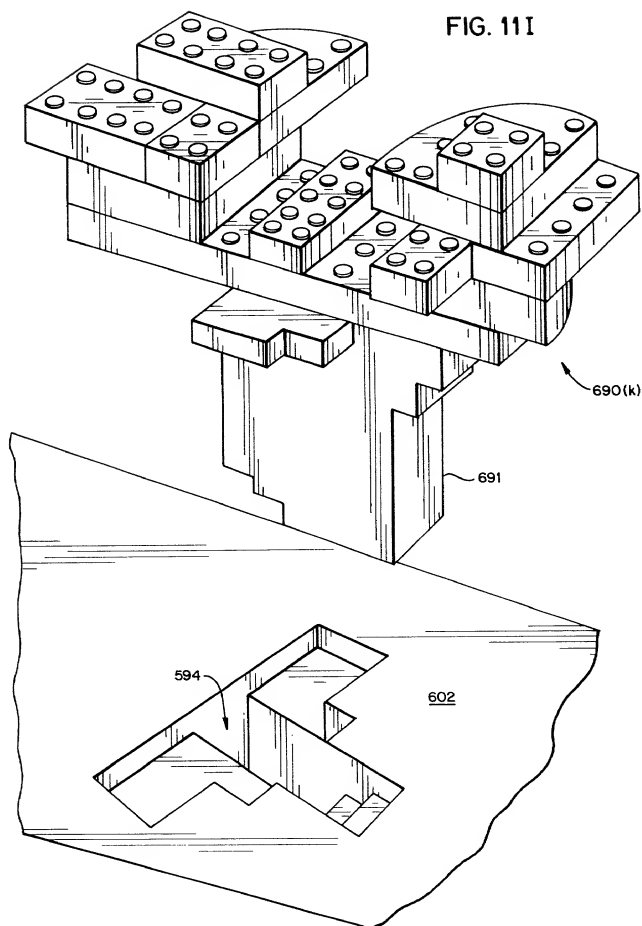


FIG. 11J

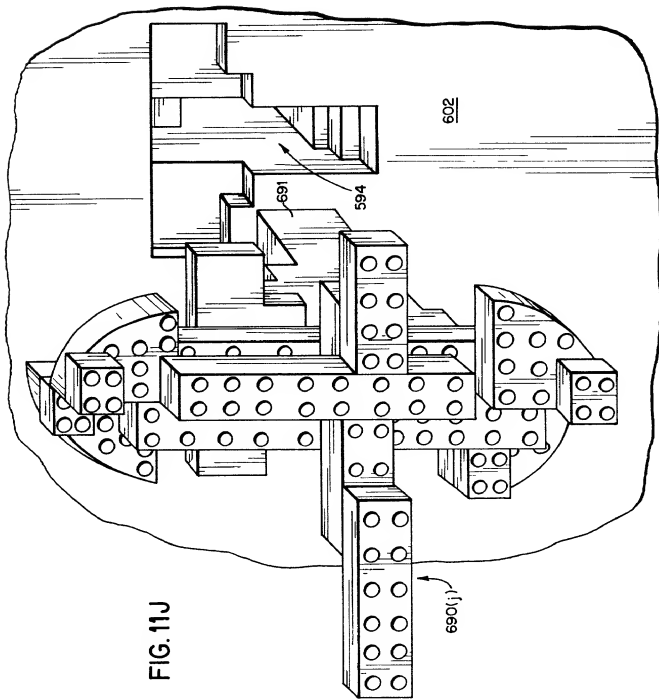


FIG. 12

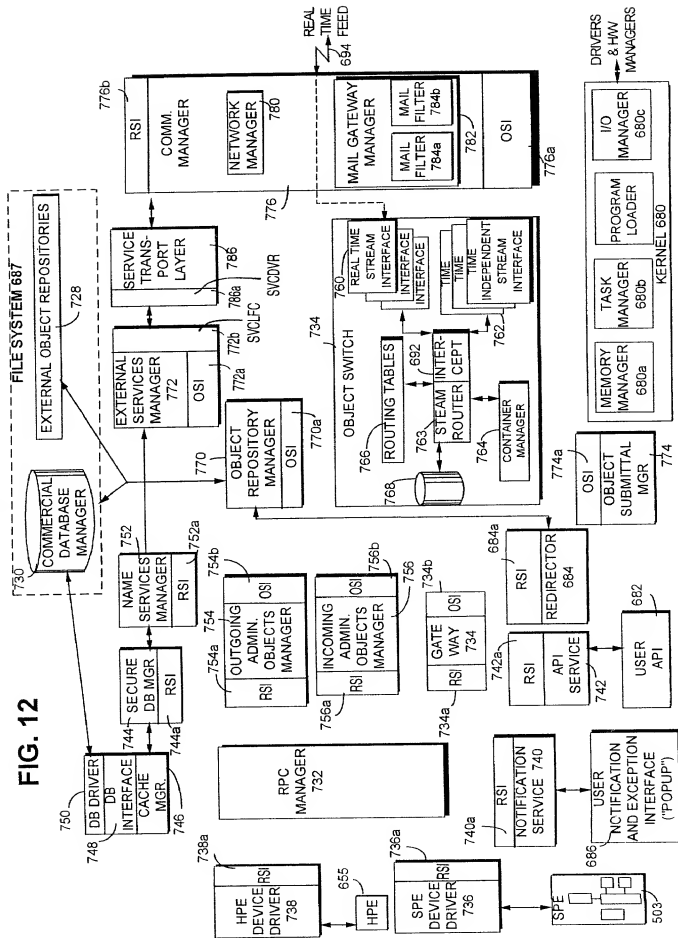


FIG. 12A

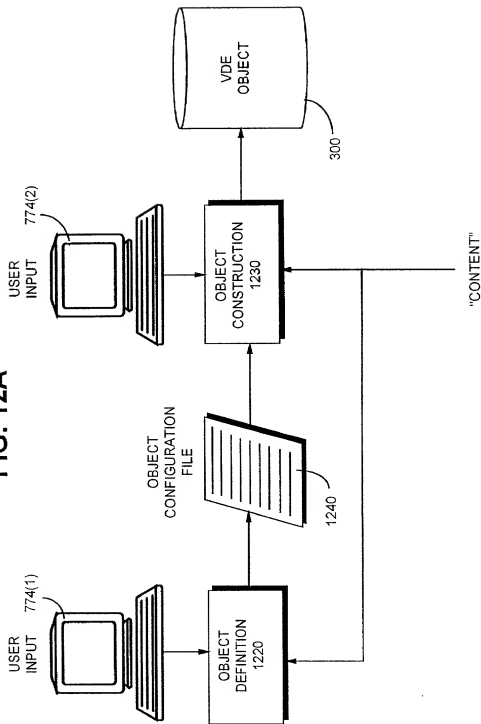


FIG. 14A

DEVICE FIRM WIRE LOW LEVEL SERVICES 582	TIME BASE MANAGER 554
INITIALIZATION	ENCRYPTION/DECRYPTION MANAGER 556
POST	PK
DOWNLOAD CHALLENGE/RESPONSE AND AUTHENTICATION	BULK
RECOVERY	KEY AND TAG MANAGER 558
EEPROM/FLASH MEMORY MANAGER	KEY STORAGE IN EEPROM
KERNEL/DISPATCHER 552	KEY LOCATOR
INITIALIZATION	KEY GENERATOR
TASK MANAGER 576 (SLEEP/AWAKE/CONTEXT SWAP)	CONVOLUTION ALGORITHM
INTERRUPT HANDLER 584 (TIMER/BIU/POWER FAIL/WATCHDOG TIMER/ENCRYPTION COMPLETED)	SUMMARY SERVICES MANAGER 560
BIU HANDLER 586	EVENT SUMMARIES
MEMORY MANAGER 578	BUDGET SUMMARIES
INITIALIZATION (SETTING MMU TABLES	DISTRIBUTER SUMMARY SERVICES
ALLOCATE	CHANNEL SERVICES MANAGER 562
DEALLOCATE	CHANNEL HEADERS
VIRTUAL MEMORY MANAGER 580	CHANNEL DETAILS
SWAP BLOCK PAGING	LOAD MODULE EXECUTION SERVICES 568
EXTERNAL MODULE PAGING	AUTHENTICATION MANAGER/SECURE COMMUNICATION MANAGER 564
MEMORY COMPRESS	DATABASE MANAGER 566
RPC AND TABLES 550	MANAGEMENT FILE SUPPORT
INITIALIZATION	TRANSACTION AND SEQUENCE NUMBER SUPPORT
MESSAGING CODE /SERVICES MANAGER	SRN/ HASH
SEND/RECEIVE	DTD INTERPRETER 590
STATUS	LIBRARY ROUTINES 574
RPC DISPATCH TABLE	I/O CALLS (STRING SEARCH ETC.)
RPC SERVICE TABLE	MISC. ITEMS THAT ARE PROBABLY LIBRARY ROUTINES
	TAG CHECKING, MD5, CRC'S
	INTERNAL LM'S 572 FOR BASIC METHODS
	METER LOAD MODULE(S)
	BILLING LOAD MODULE(S)
	BUDGET LOAD MODULE(S)
	AUDIT LOAD MODULE(S)
	READ OBJECT LOAD MODULE(S)
	WRITE OBJECT LOAD MODULE(S)
	OPEN OBJECT LOAD MODULE(S)
	CLOSE OBJECT LOAD MODULE(S)

10500 10500 10500

FIG. 14B

⋮

PUBLIC KEY AND PRIVATE KEY, SYSTEM ID, AUTHENTICATION CERTIFICATE,VDE SYSTEM PUBLIC KEY, PRIVATE DES KEY
TOP LEVEL KEYS FOR OBJECTS
TOP LEVEL BUDGET INFO
METER SUMMATION VALUES
KEY RECORDS FOR BUDGET RECORDS, AUDIT RECORDS, STATIC MANAGEMENT RECORDS, UPDATED MANAGEMENT RECORDS, ETC.
⋮
DEVICE DATA TABLE
SITE ID
TIME
ALARMS
TRANSACTION/SEQUENCE #S
MISCELLANEOUS
MEMORY MAP
MAP METERS
LM/UDT TABLE
TASK MANAGER 576
CHANNEL(S)
SUMMARY SERVICES 560
SECURE DATABASE TAGS
SRN ENTRIES
HASH ENTRIES

⋮

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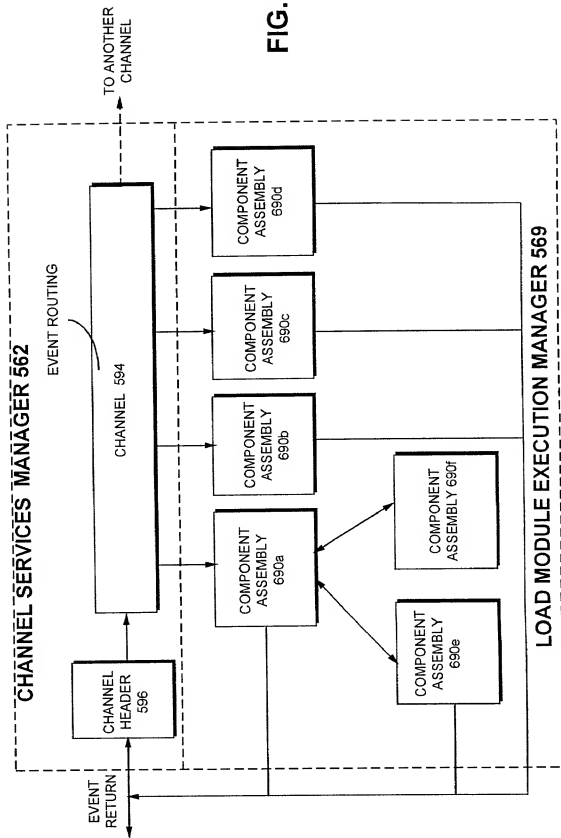


FIG. 15

FIG. 15A

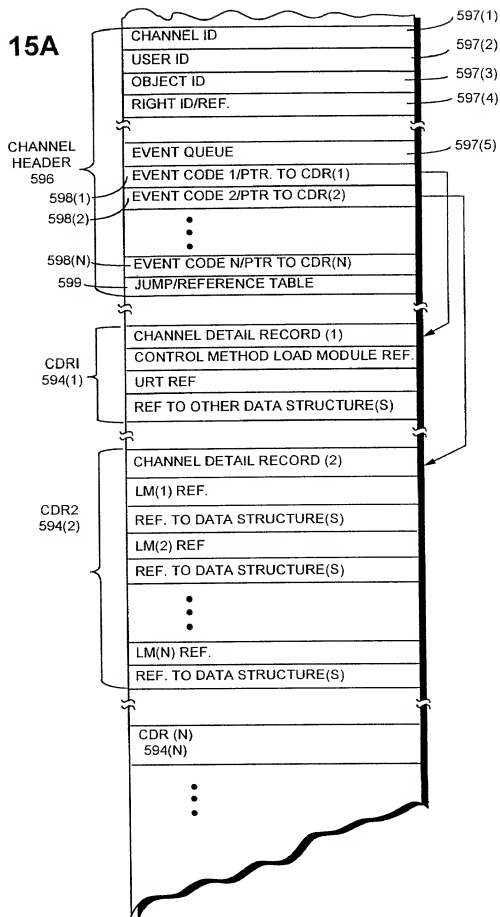


FIG. 15B

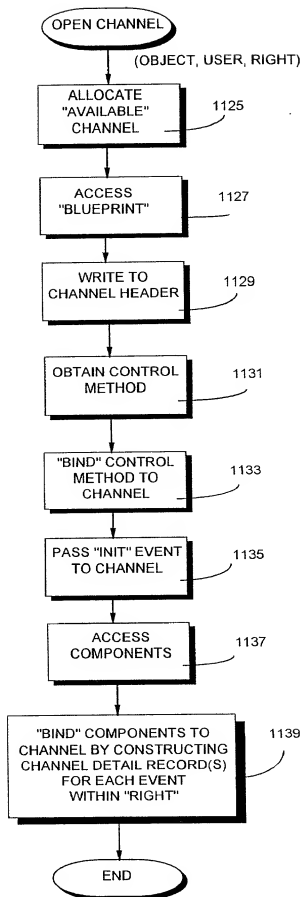


FIG. 16

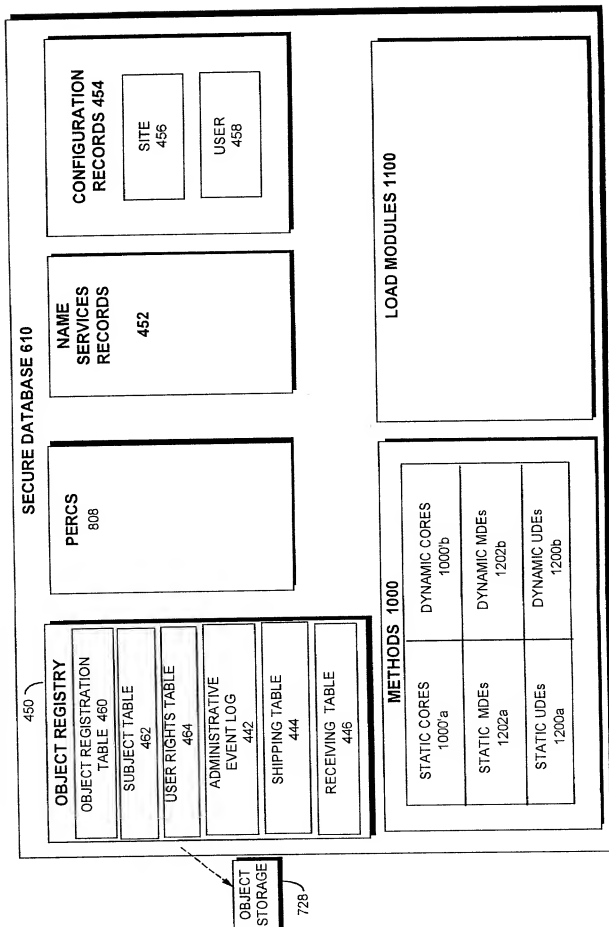




FIG. 17

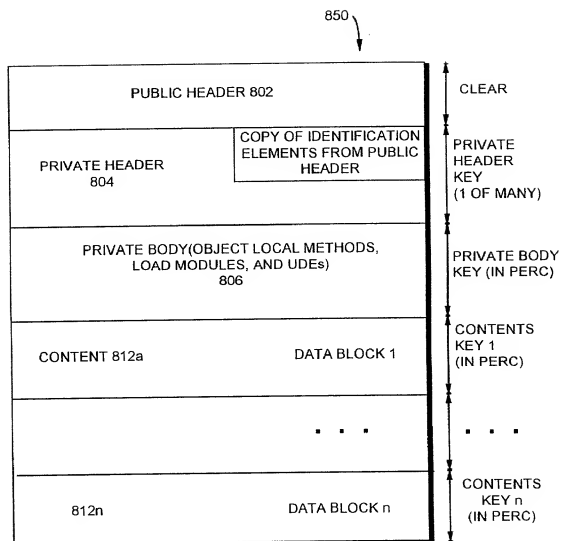


FIG. 18

Diagram illustrating a data structure layout, likely a memory block or file structure, showing various headers, bodies, and data blocks.

The structure is organized into several sections:

- PUBLIC HEADER 802**: The top section.
- PRIVATE HEADER 804**: Below the public header, containing:
 - COPY OF IDENTIFICATION ELEMENTS FROM PUBLIC HEADER**
 - PERC** (Private Header Key)
 - KEY BLOCKS 810** (Associated with PERC)
- PRIVATE BODY (OBJECT METHODS, LOAD MODULES, AND UDEs) 806**: The main body section.
- CONTENT 812a** and **DATA BLOCK 1**: The first data entry.
- ...**: Ellipsis indicating multiple entries.
- CONTENT 812n** and **DATA BLOCK n**: The last data entry.

A vertical arrow on the right side, labeled **860**, indicates a sequence of operations or keys associated with the structure:

- CLEAR**
- PRIVATE HEADER KEY (1 OF MANY)**
- PRIVATE BODY KEY (IN PERC)**
- CONTENTS KEY 1 (IN PERC)**
- CONTENTS KEY n (IN PERC)**

105000 1000000

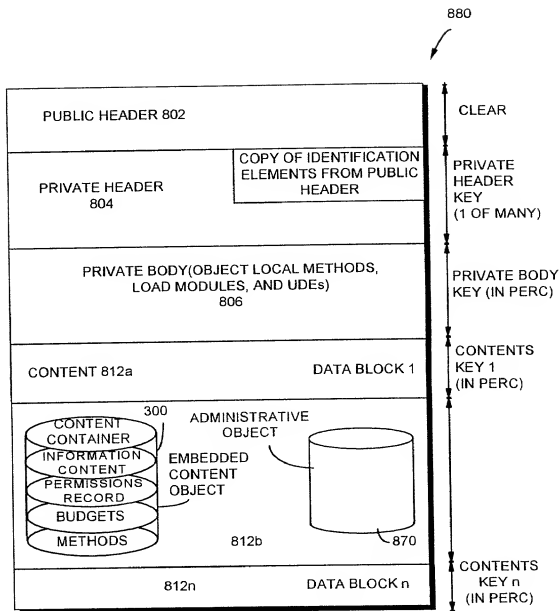


FIG. 20

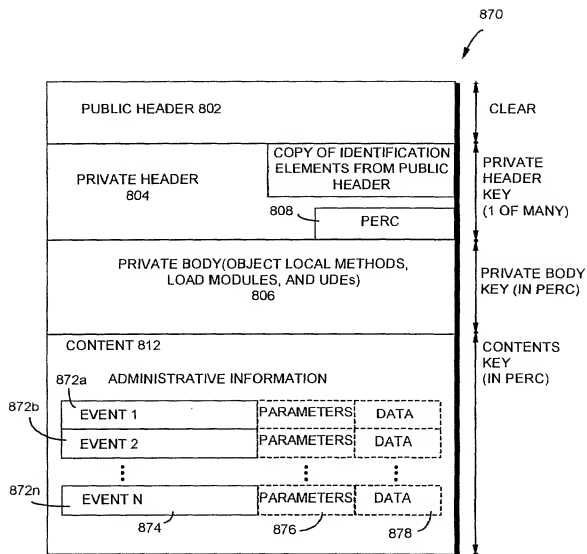


FIG. 21

FIG. 22

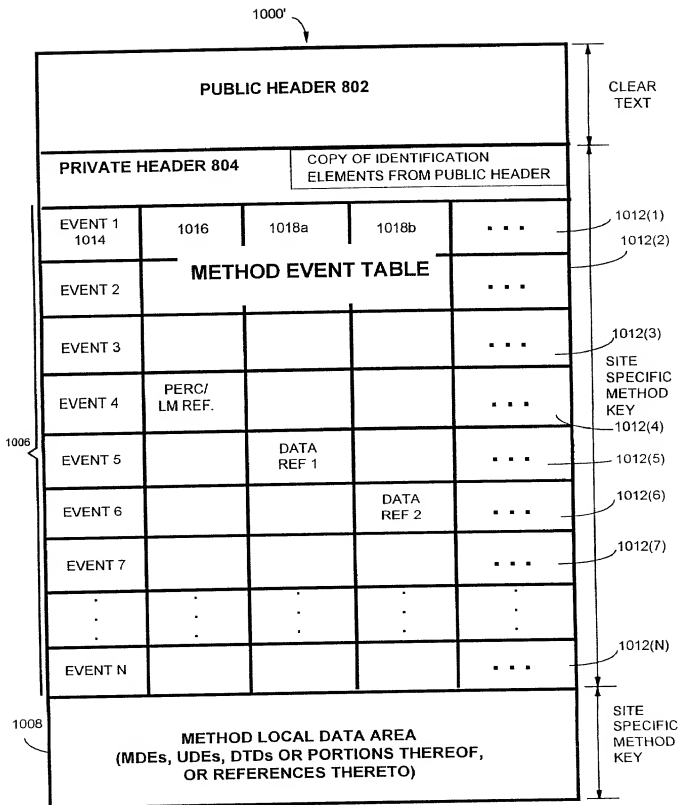


FIG. 23

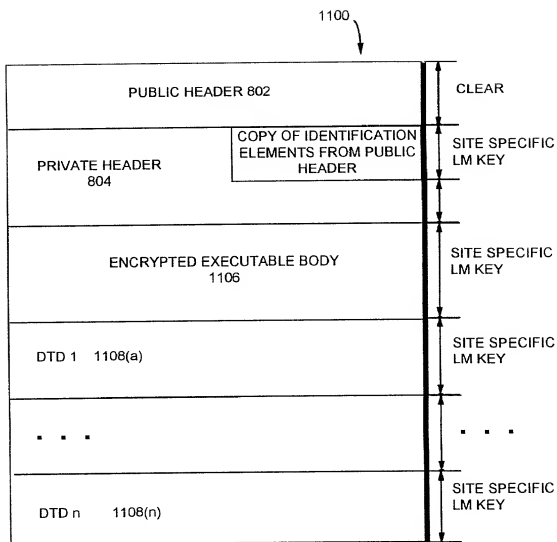


FIG. 24

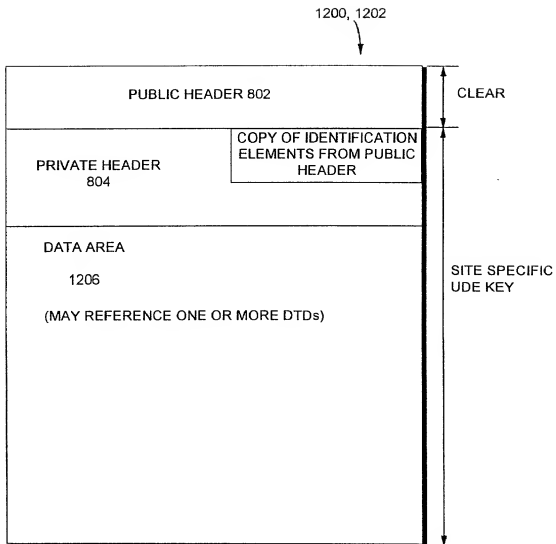


FIG. 25A

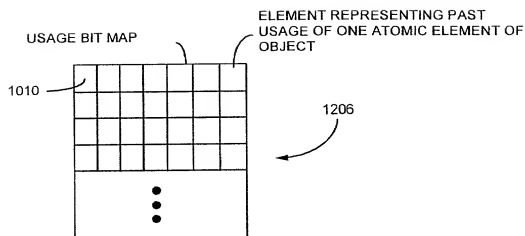


FIG. 25B

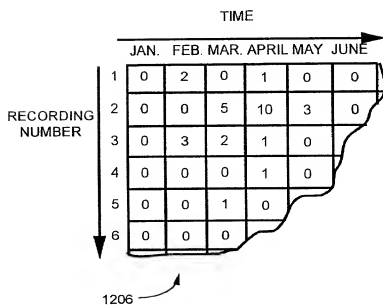


FIG. 25C

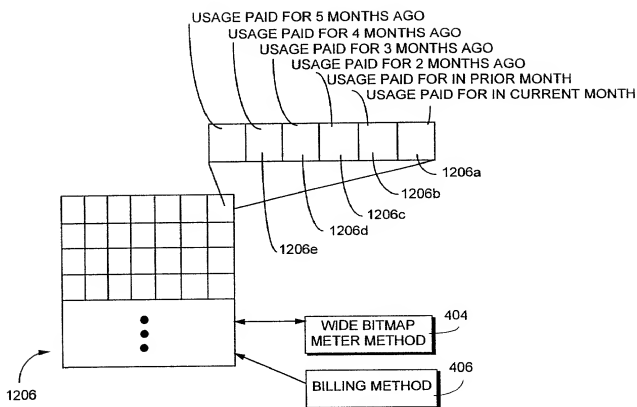


FIG. 26

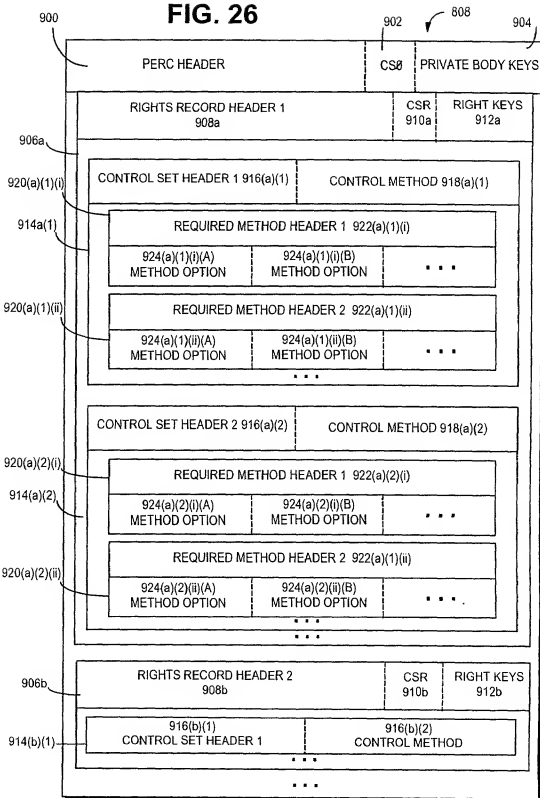


FIG. 26A

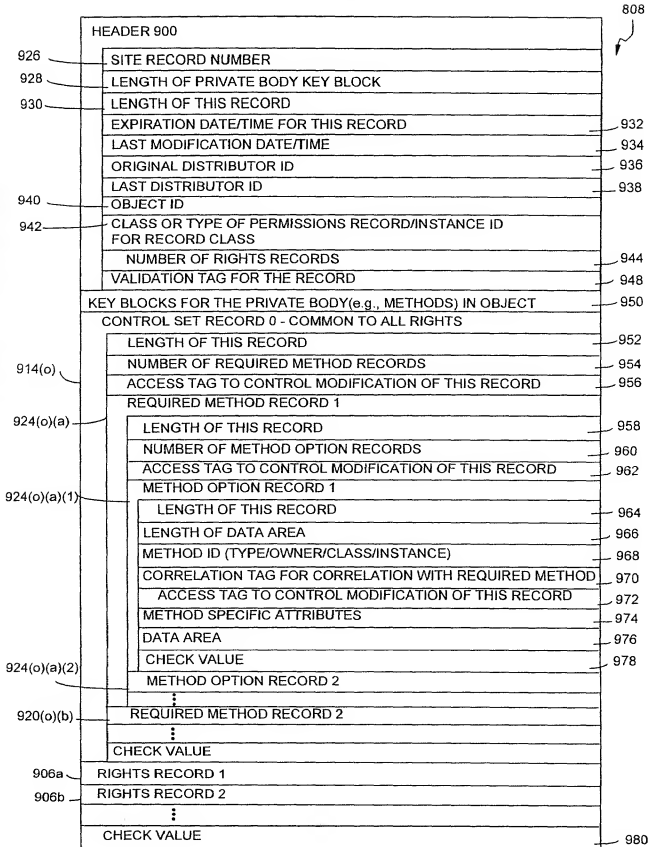


FIG. 26B

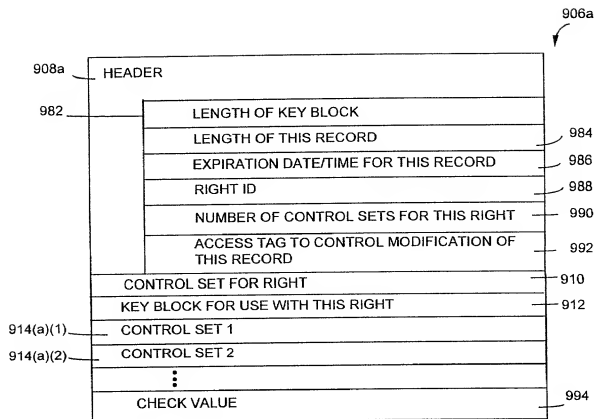


FIG. 27

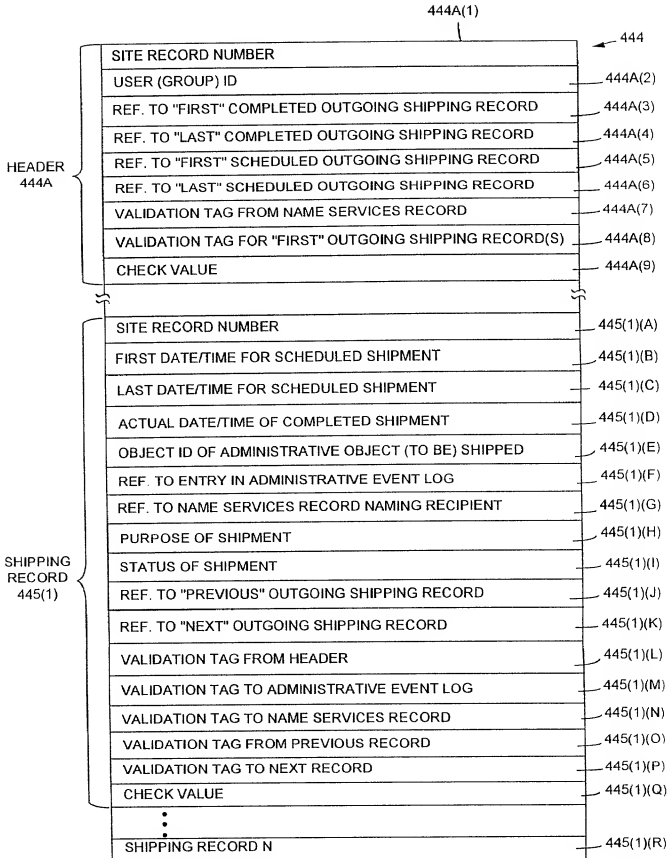


FIG. 28

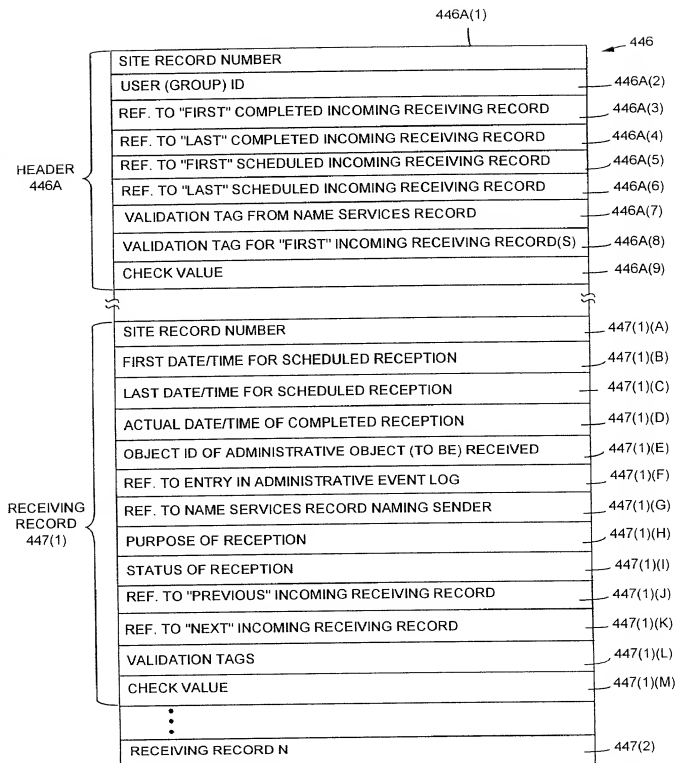


FIG. 29

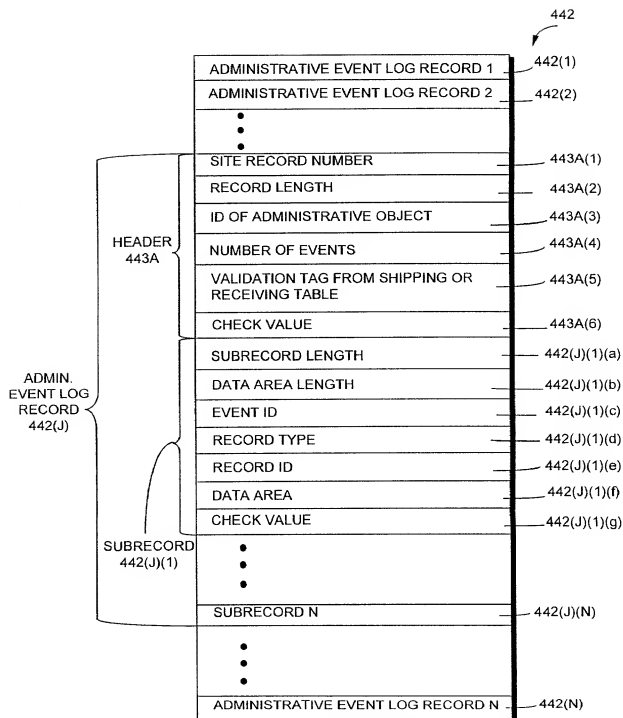
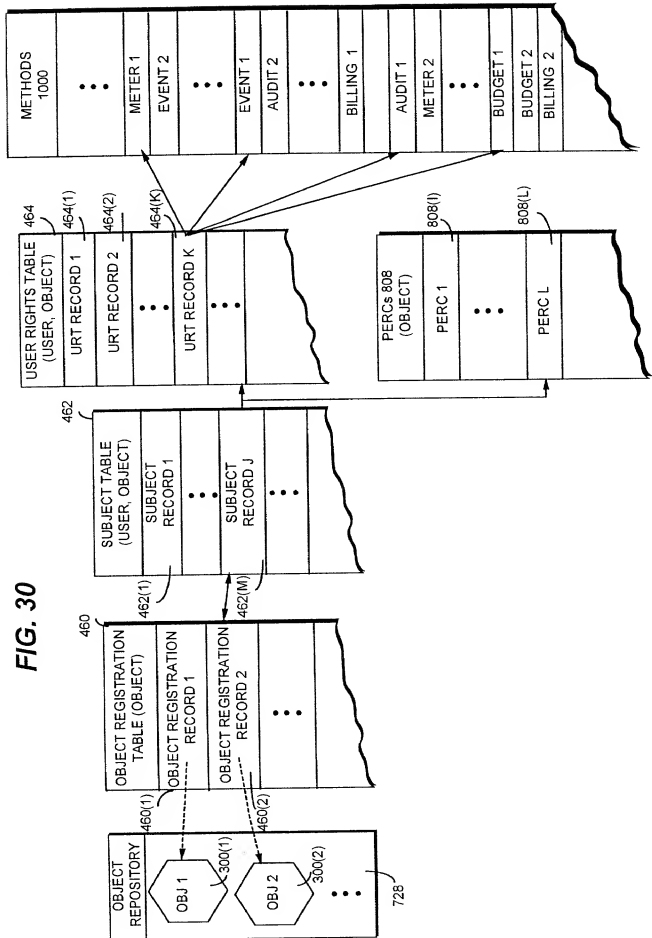


FIG. 30



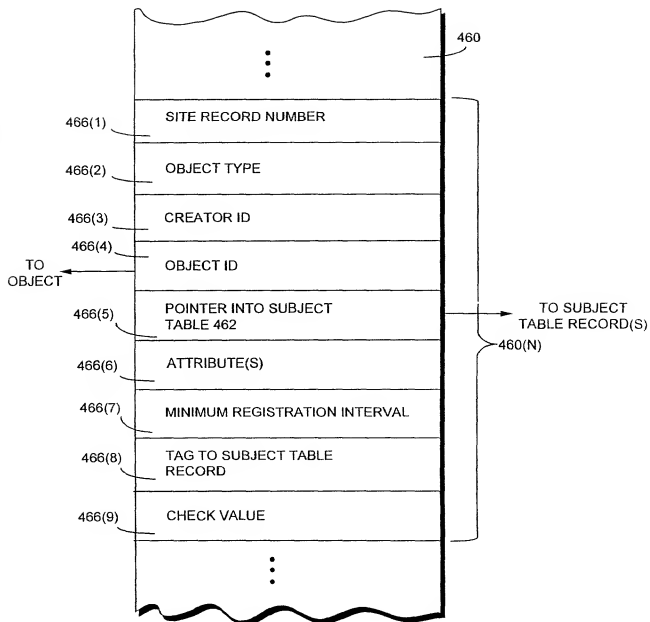


FIG. 31

FIG. 32

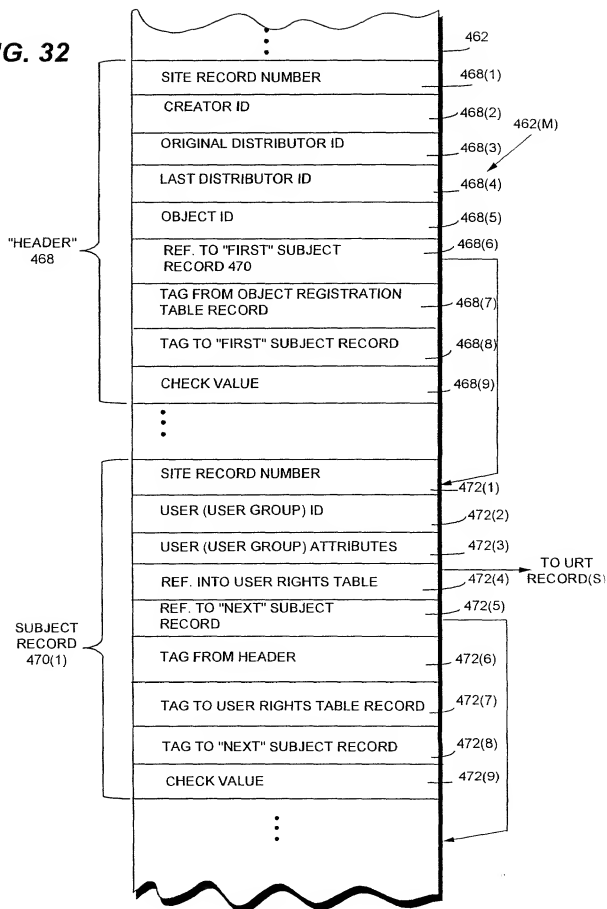


FIG. 33

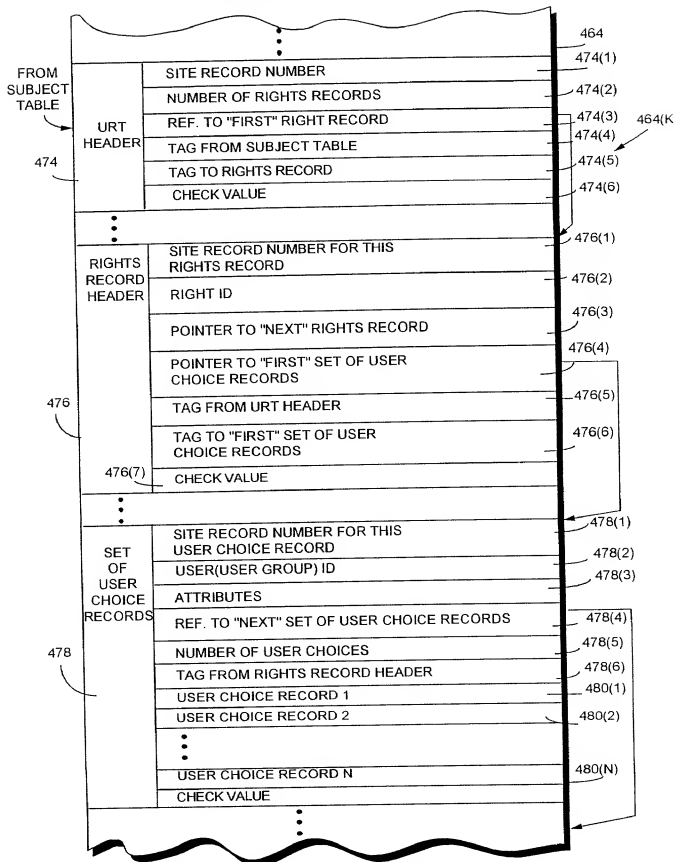


FIG. 34

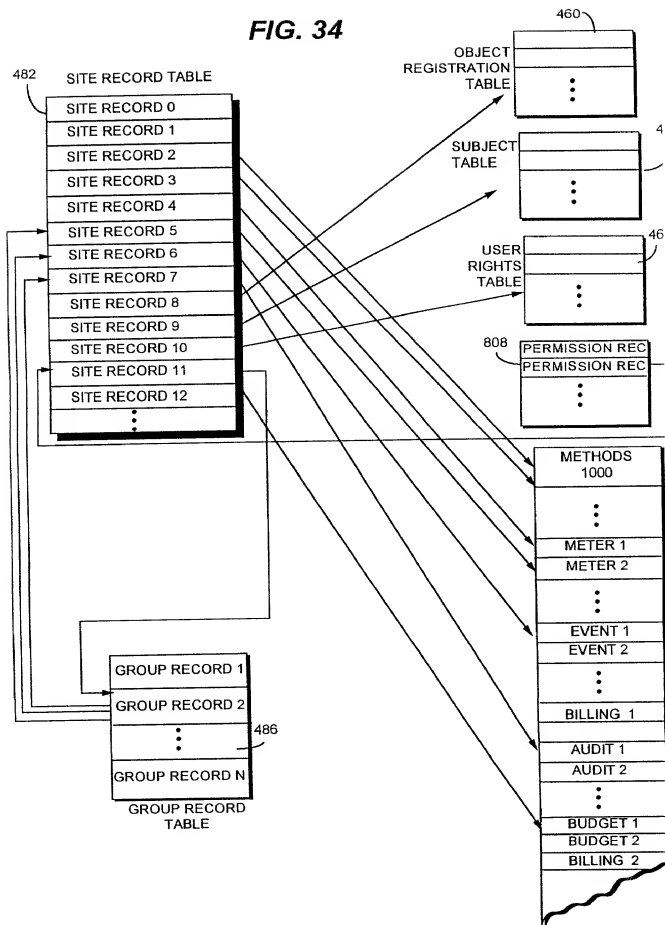


FIG. 34A

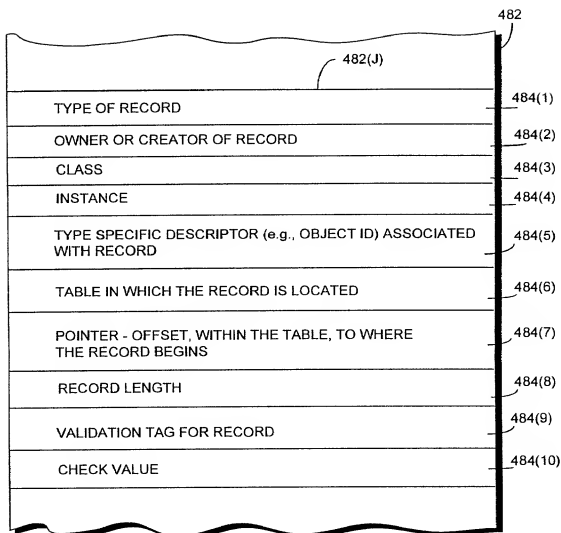


FIG. 34B

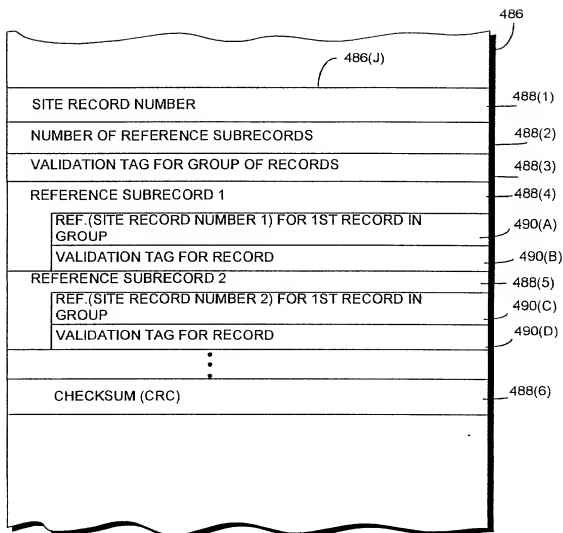


FIG. 35

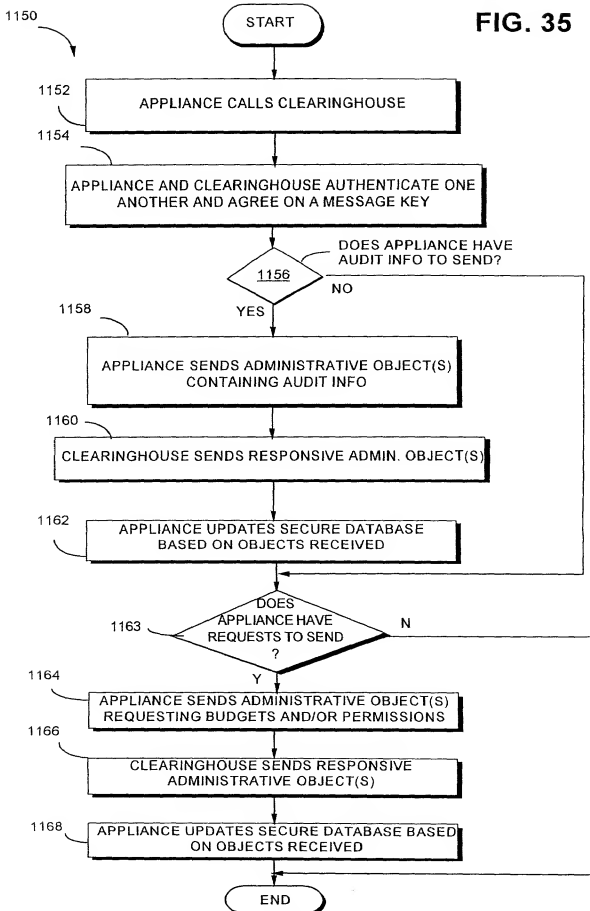


FIG. 36

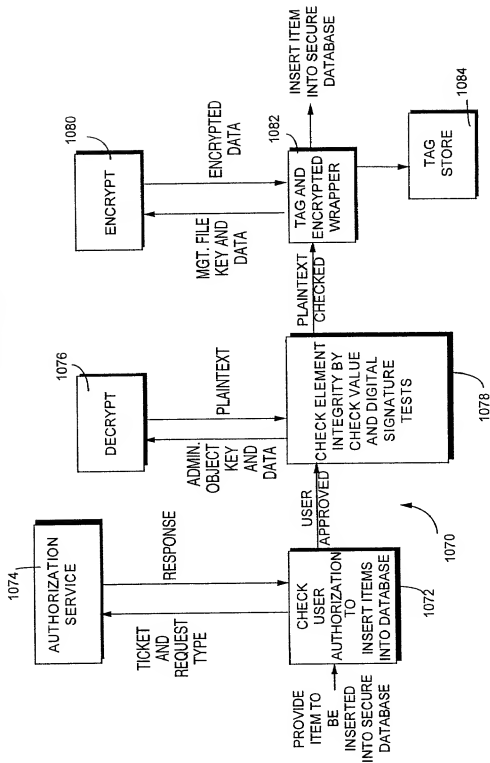


FIG. 38

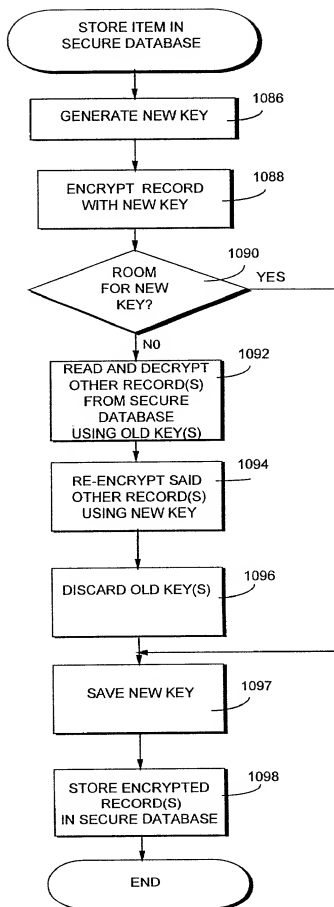


FIG. 39

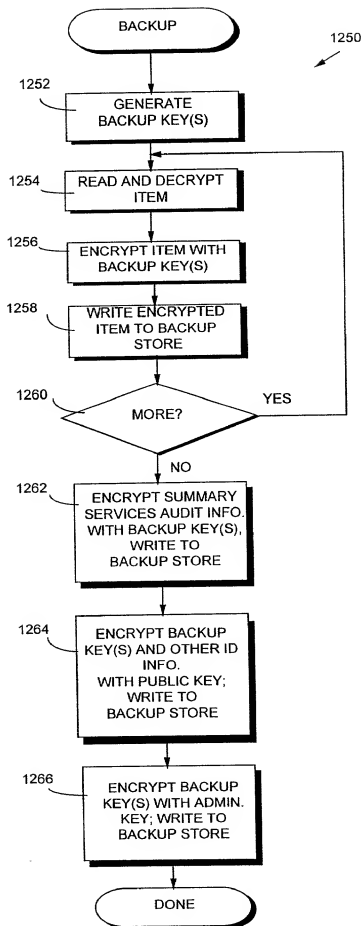
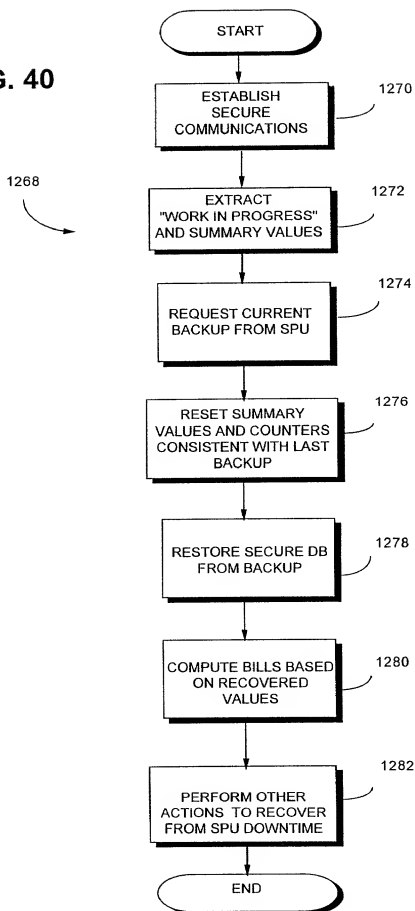


FIG. 40



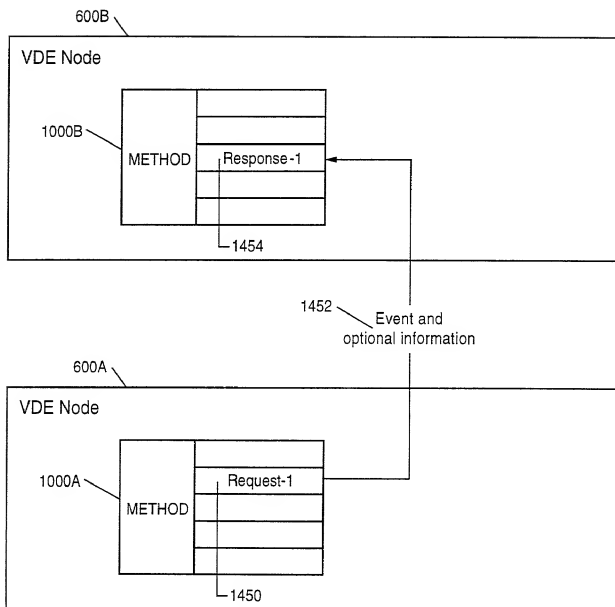


FIG. 41a

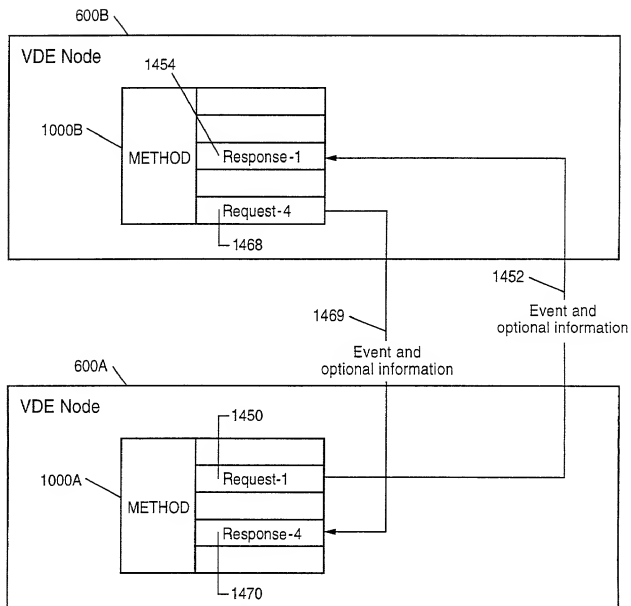
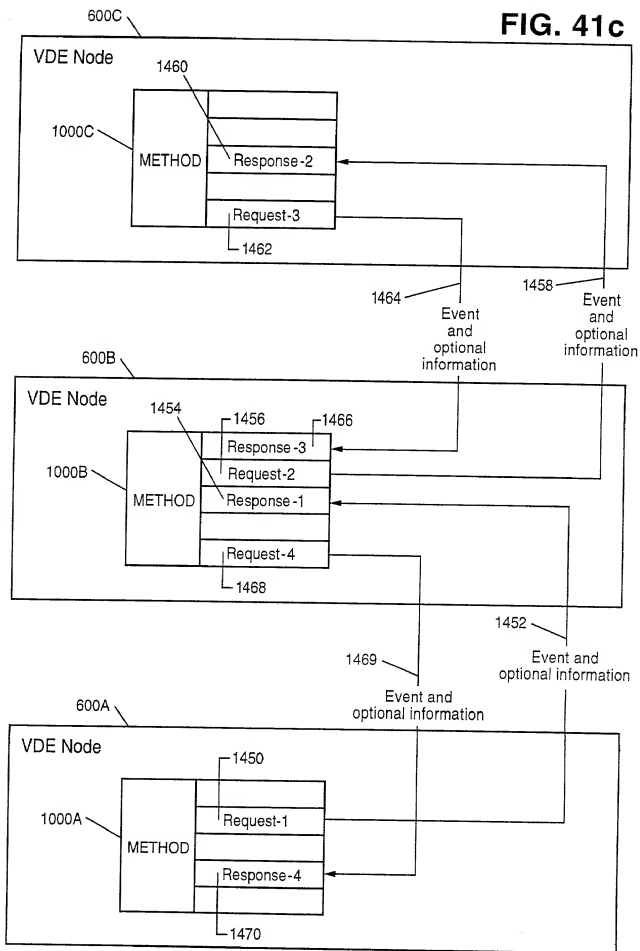
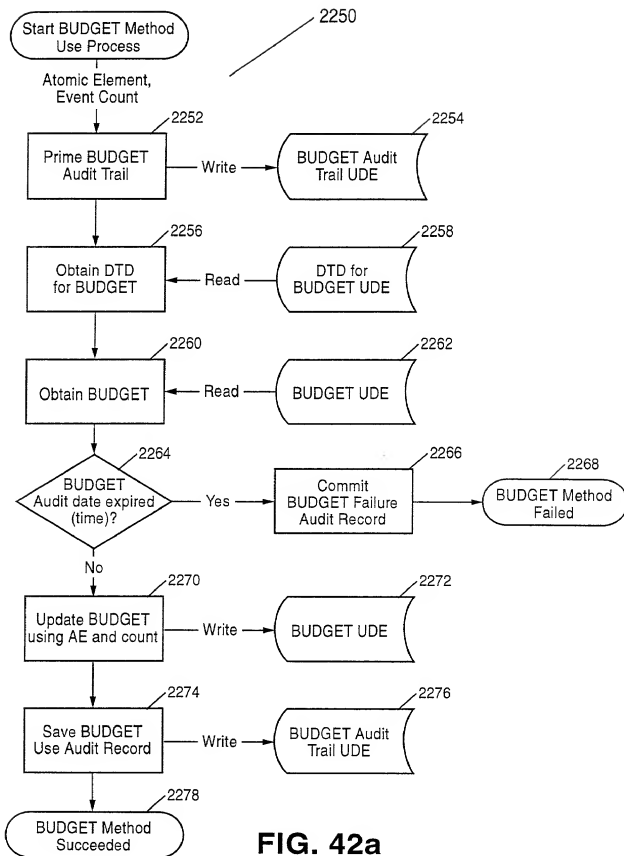


FIG. 41b

FIG. 41c



102



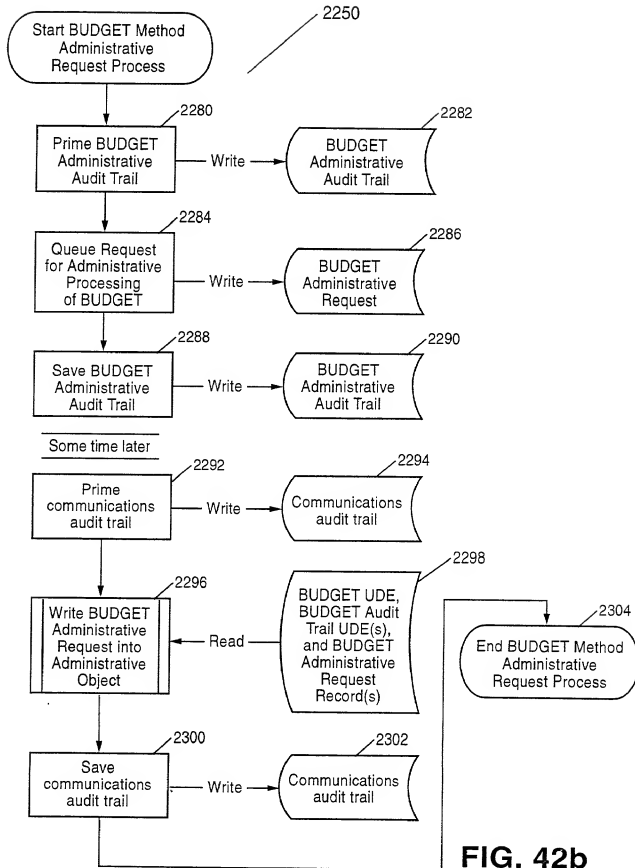
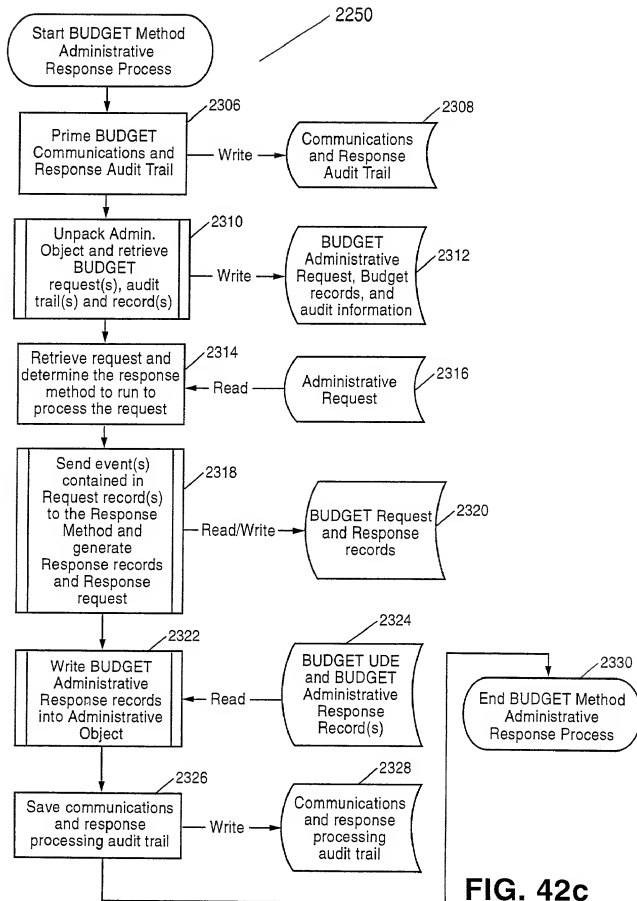


FIG. 42b



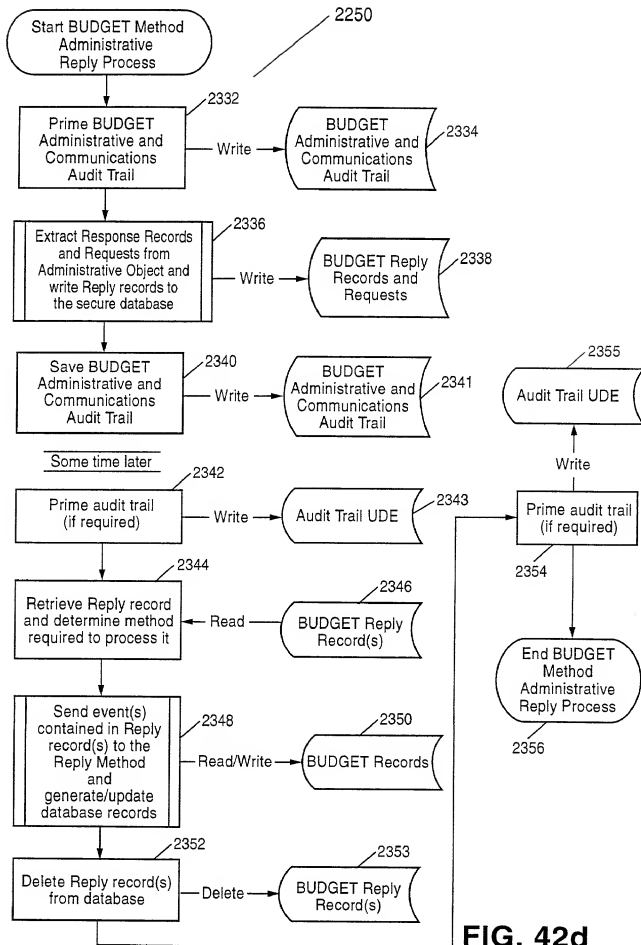


FIG. 42d

FIG. 43a

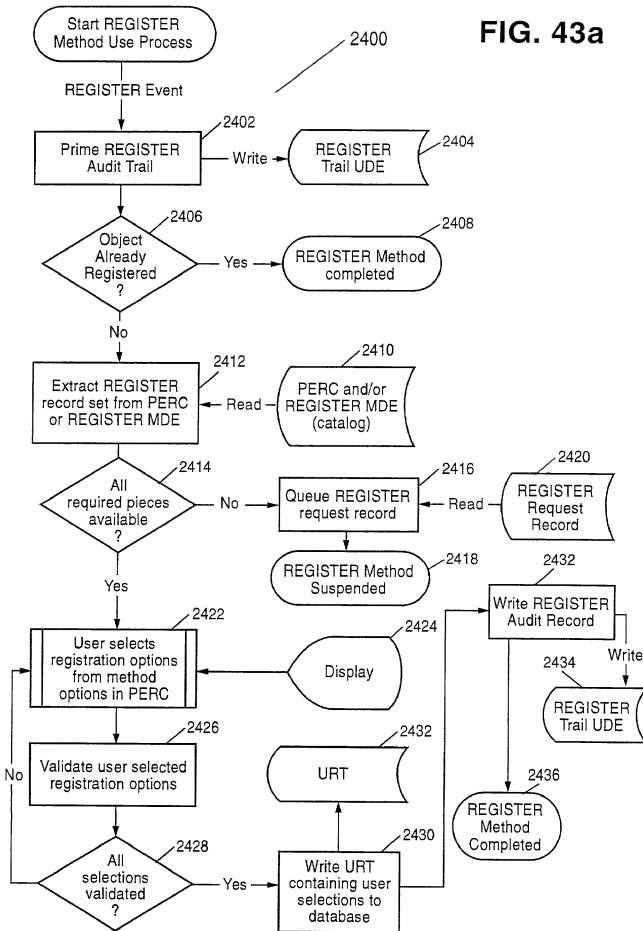


FIG. 43b

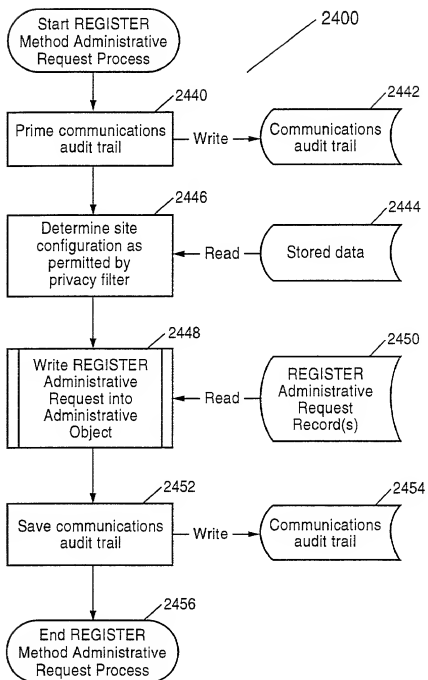


FIG. 43c

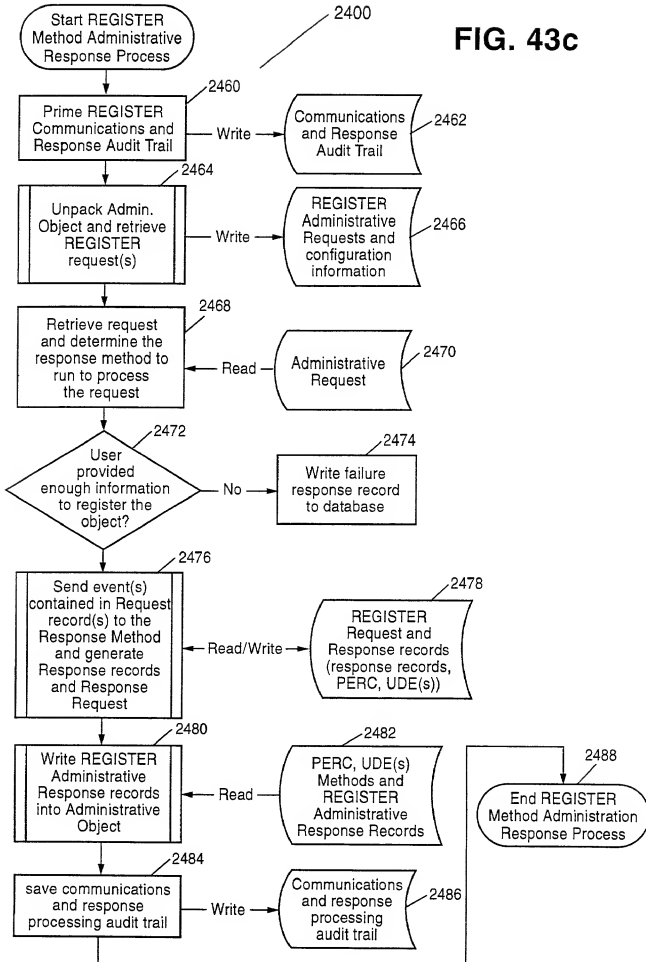


FIG. 43d

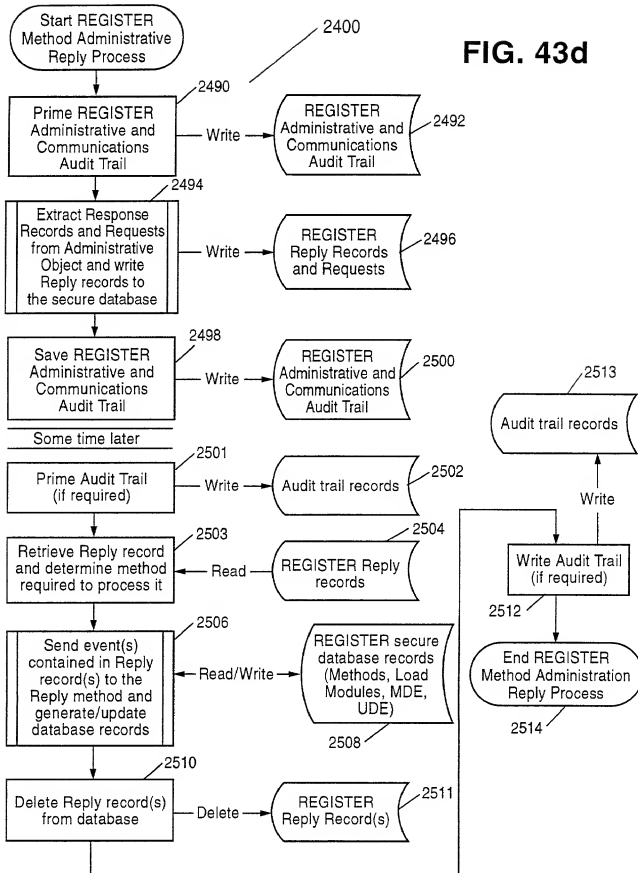


FIG. 44a

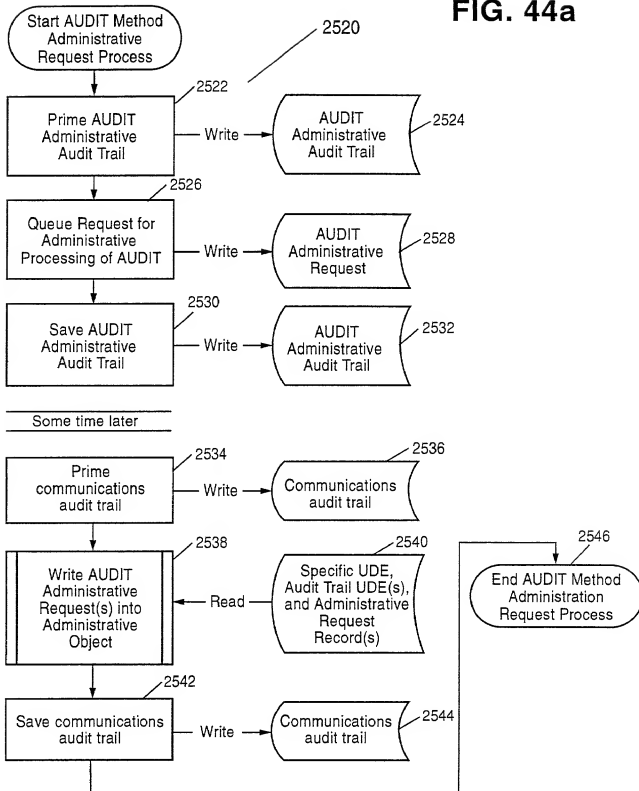


FIG. 44b

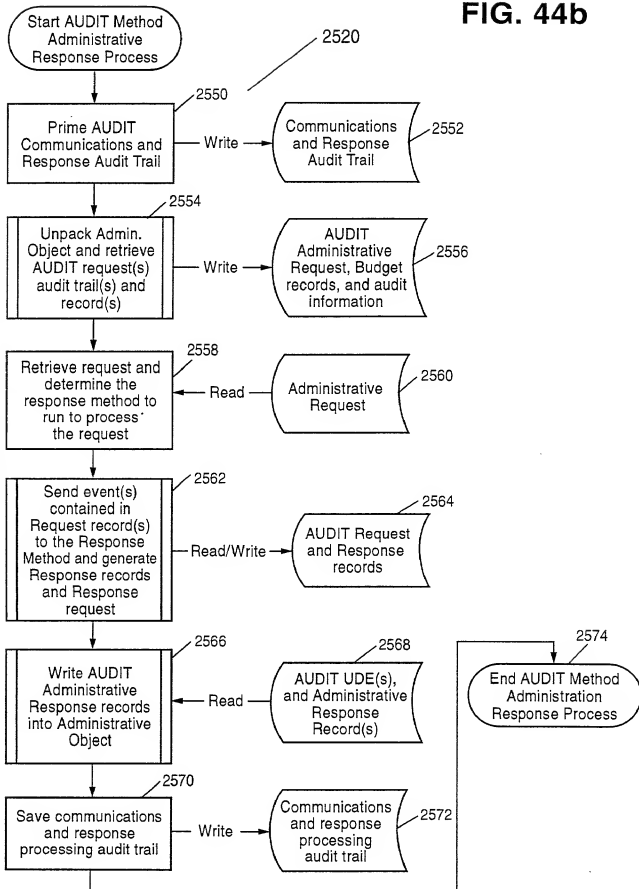


FIG. 44c

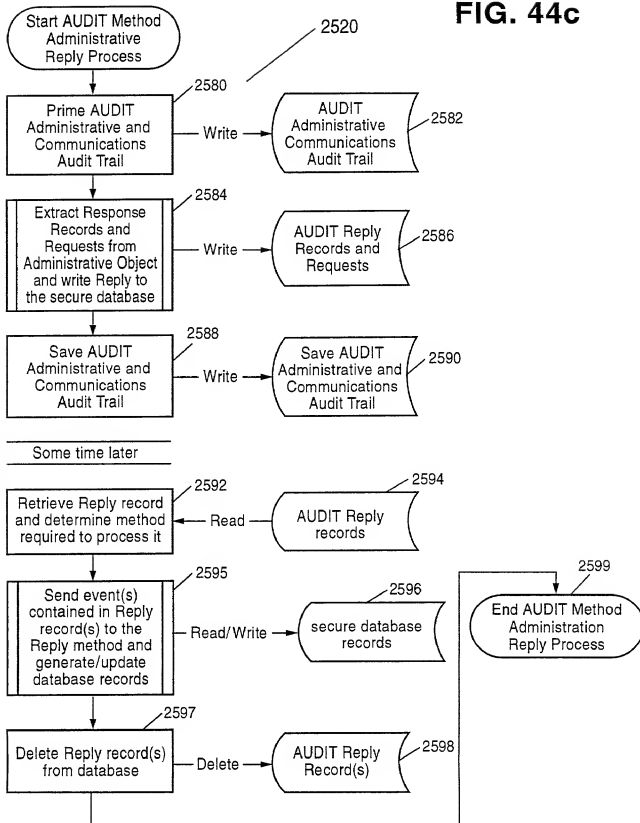


FIG. 45

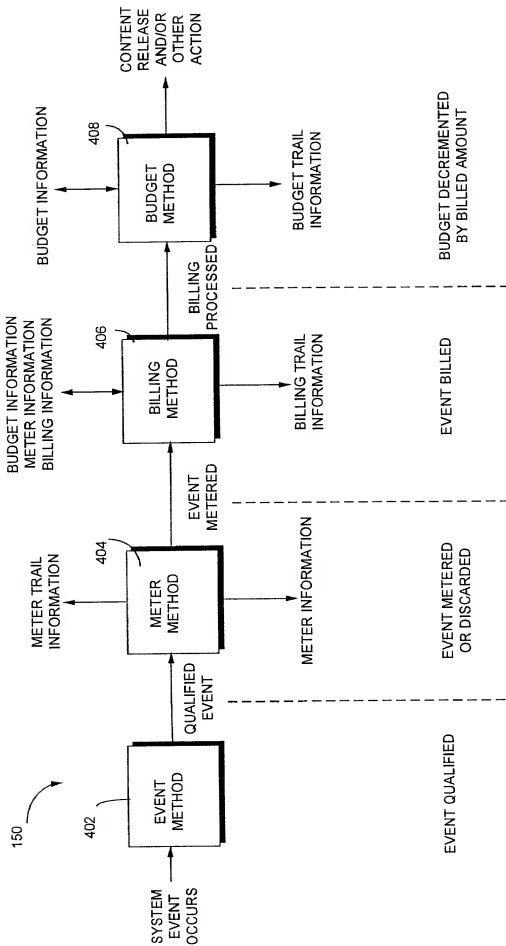


FIG. 46

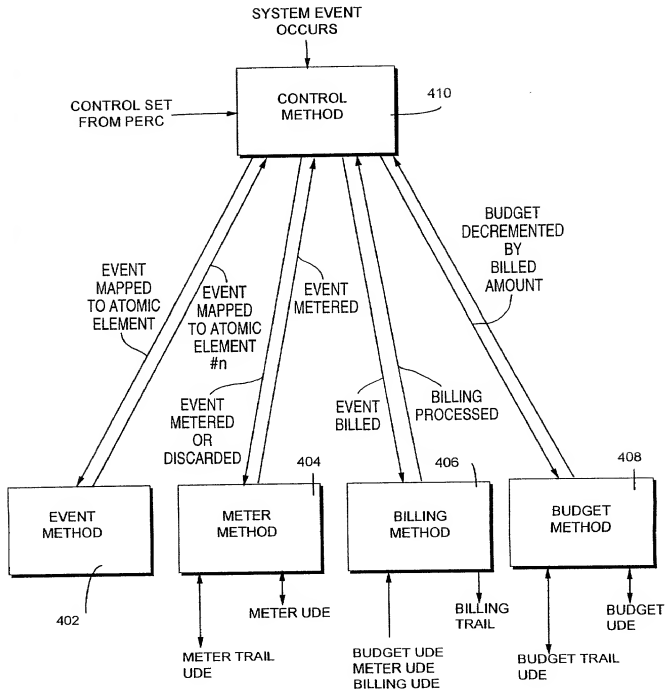


FIG. 47

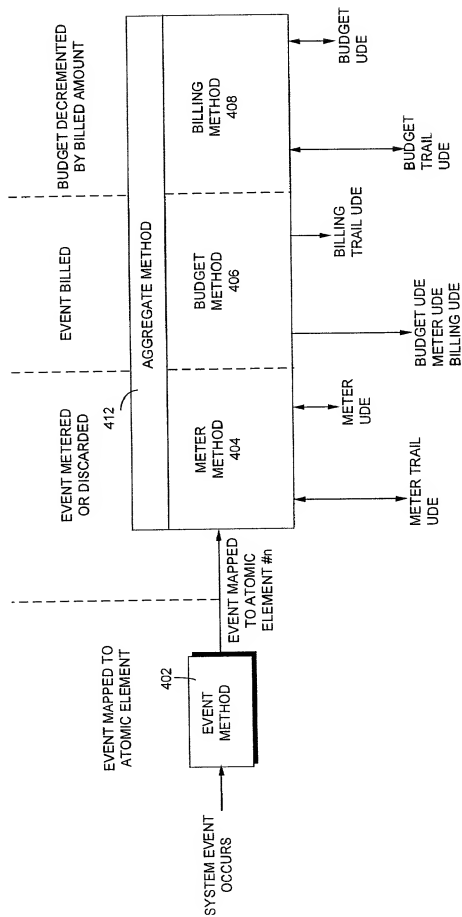
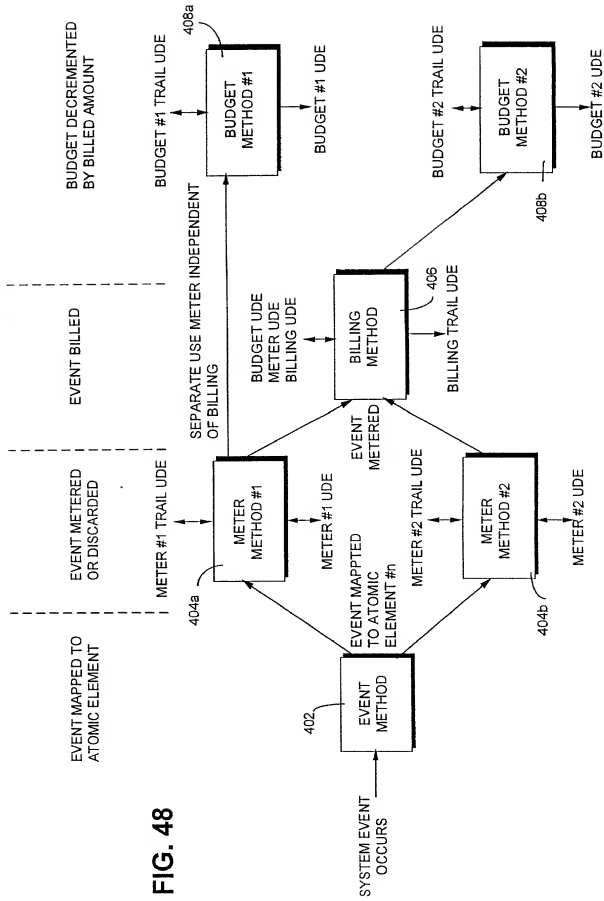


FIG. 48



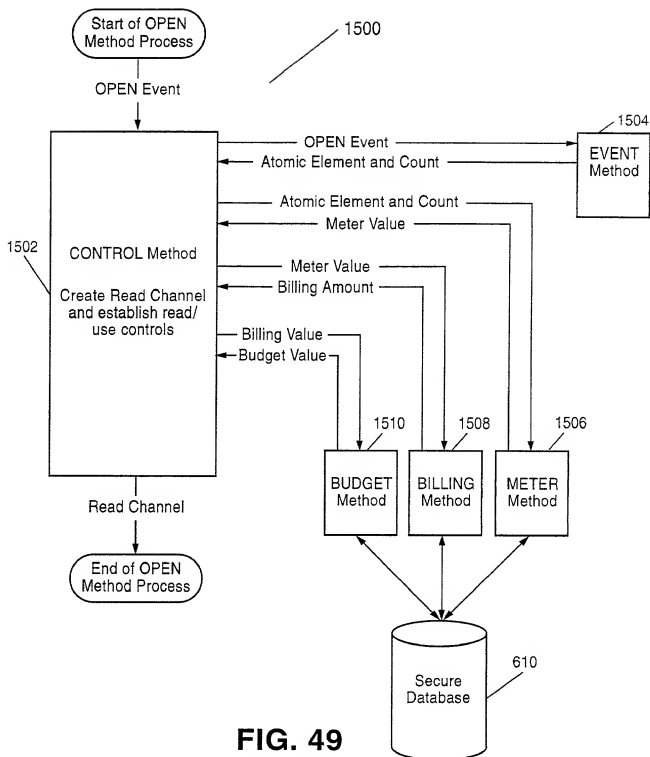


FIG. 49

1500

Start of OPEN
Method Process

1502

Open Event

Determine
identification
of object and user
to be opened.

1520

Open Event, Object ID, User ID

URT, PERC for
(object, user)

1524

Read

Is
the Object
registered for this
user?

1522

No

Call the
REGISTER
Method for
the Object.
Restart the
OPEN Method
once the
registration
is complete.

1526

Yes

Is
the Object
already open for
this user?

1528

No

OPEN Method
Elements
(Method core,
LM, UDE, MDE)

1532

Read

Create channel and
bind OPEN control
elements to it

1530

Open Event, Object ID, User ID, Channel ID

Audit UDE

1534

Write

Prime Audit
(if required)

1533

Yes

Start Secure
Database Transaction

1536

CONTROL Method

A

FIG. 49a



FIG. 49b

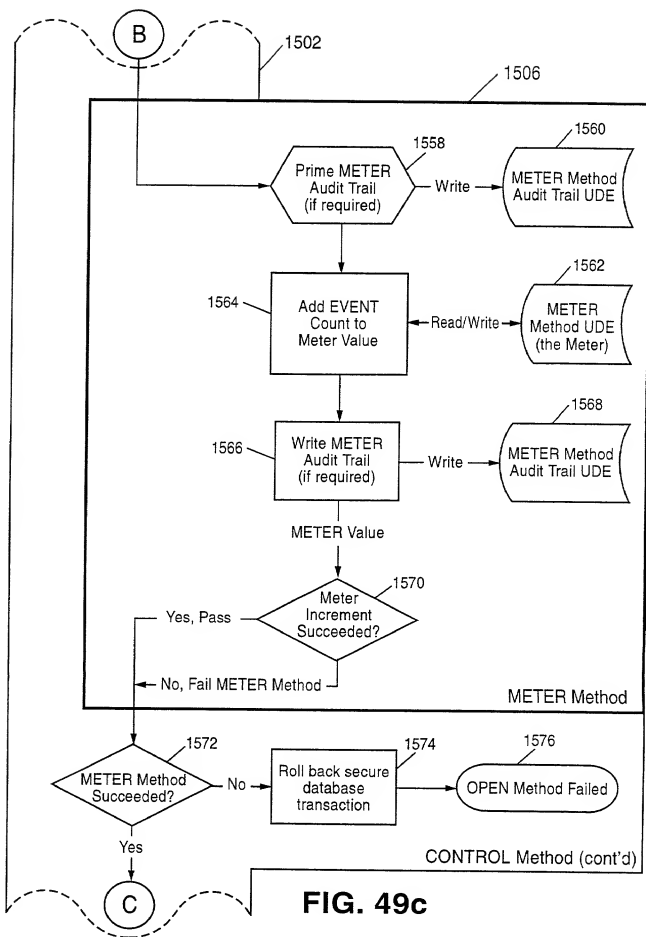


FIG. 49c

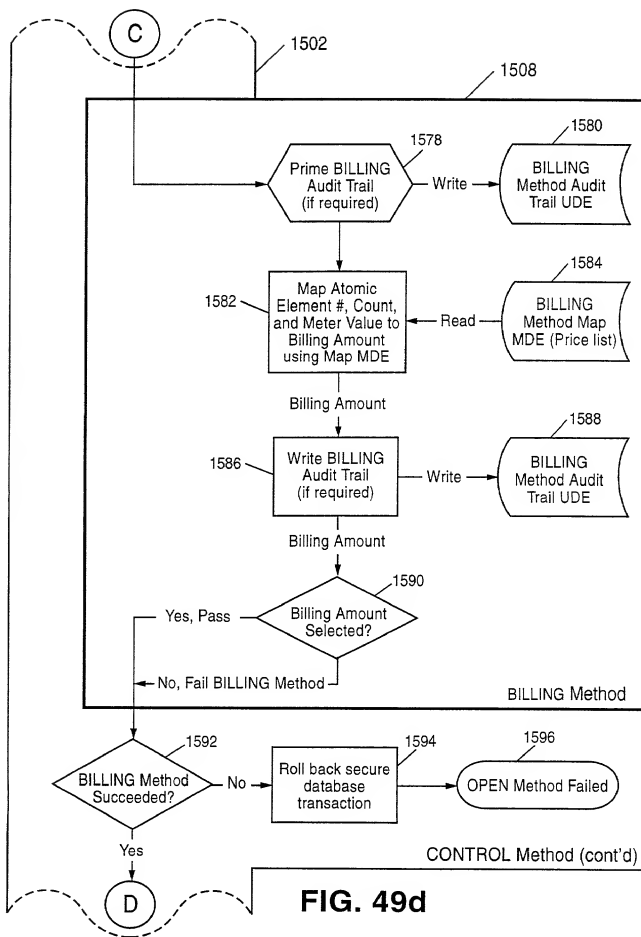


FIG. 49d

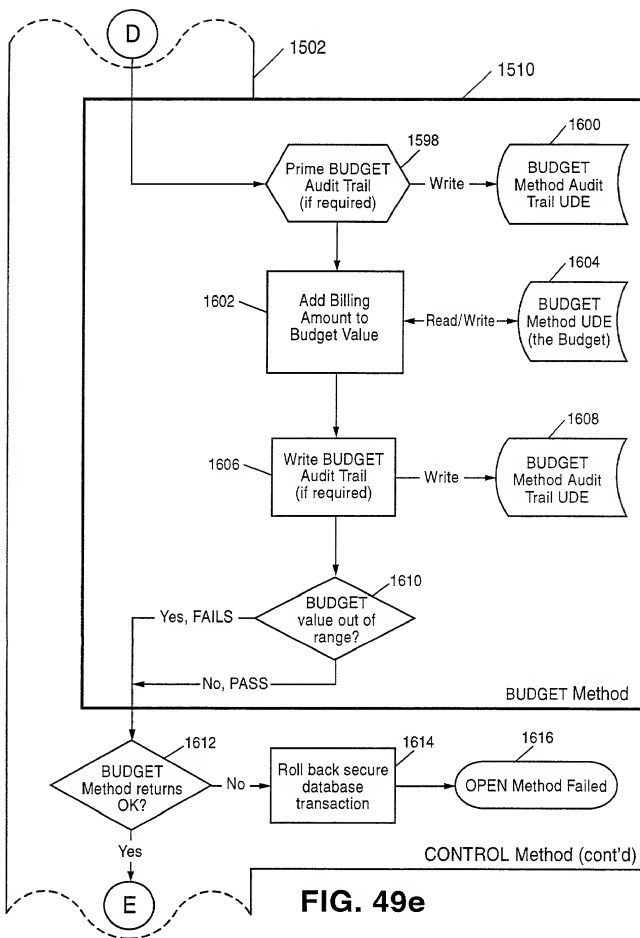
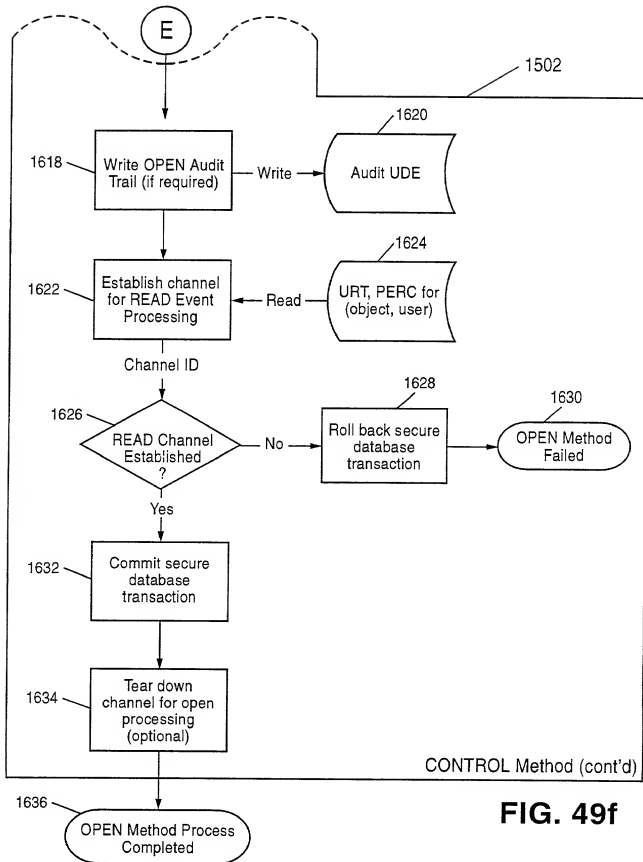
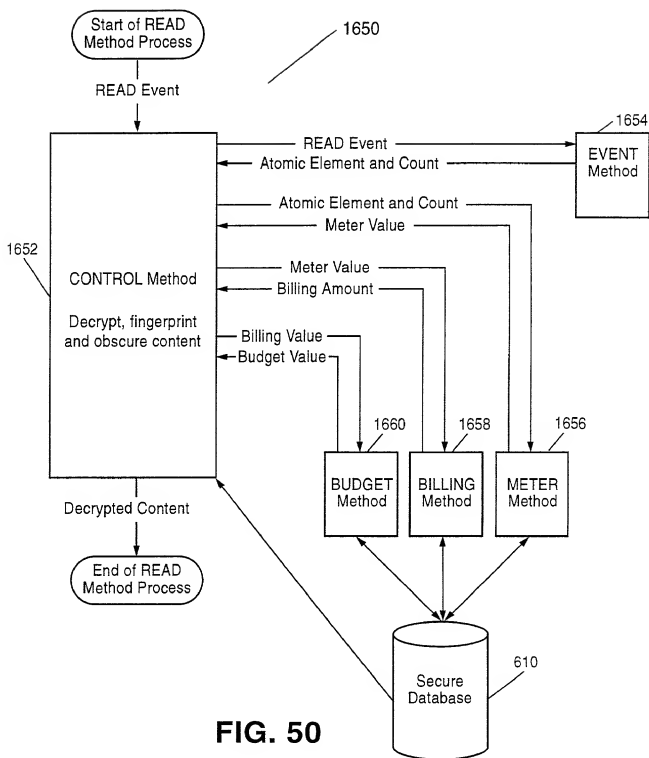


FIG. 49e





1650

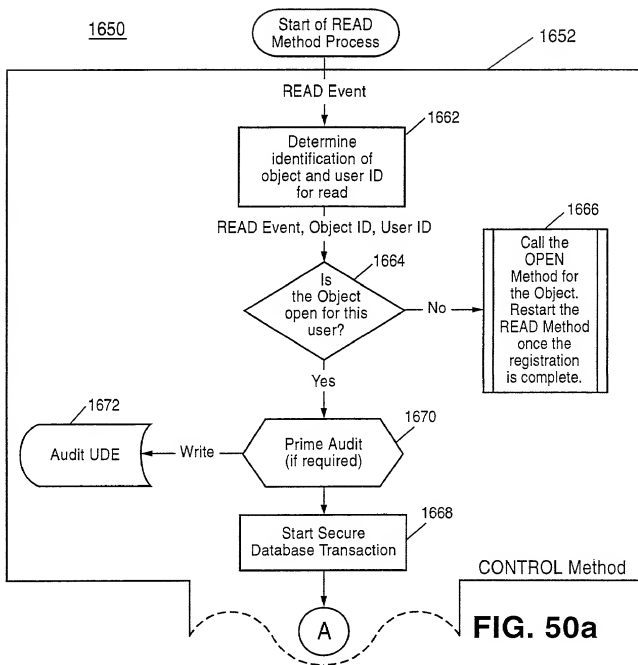


FIG. 50a

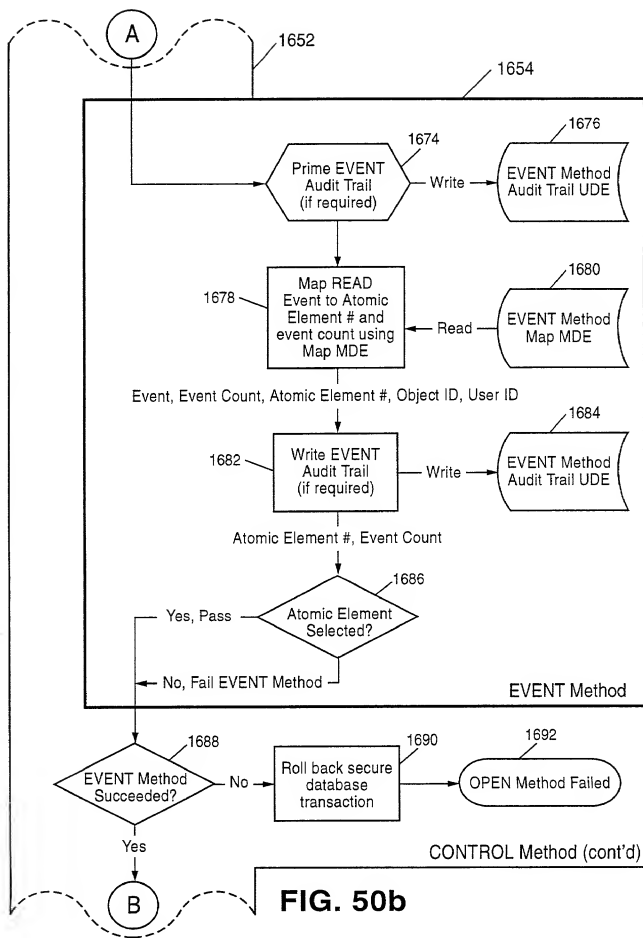


FIG. 50b

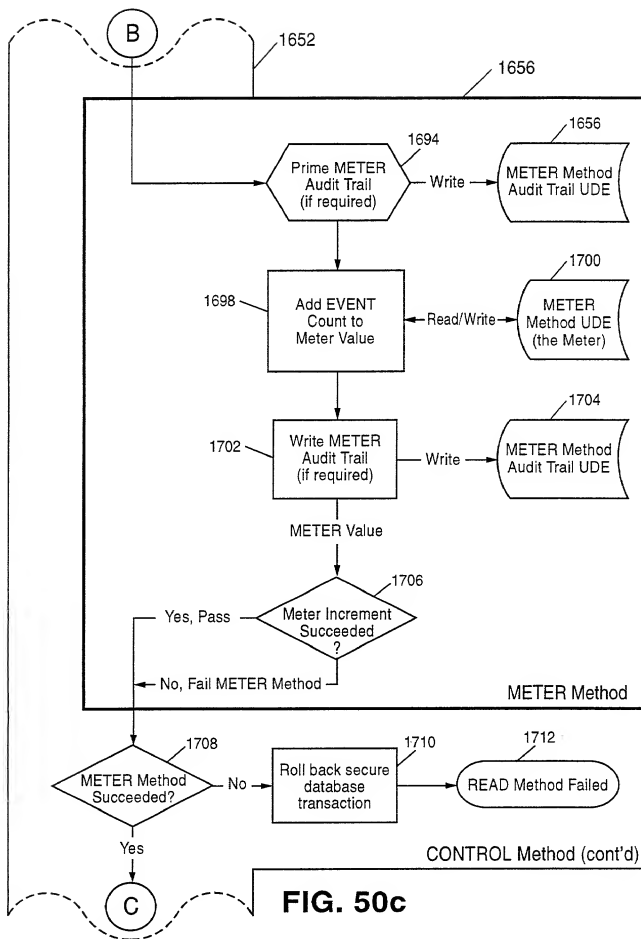


FIG. 50c

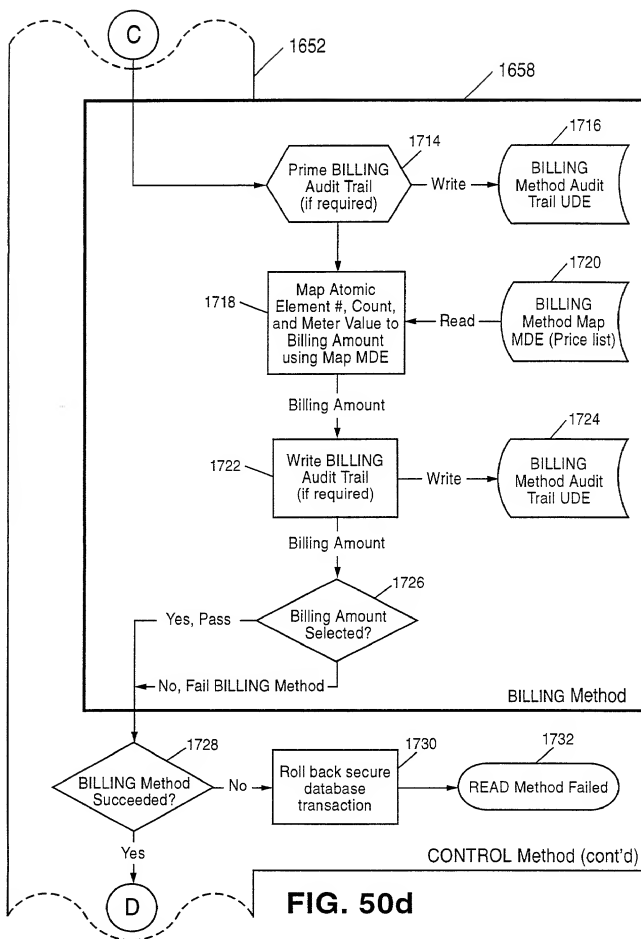


FIG. 50d

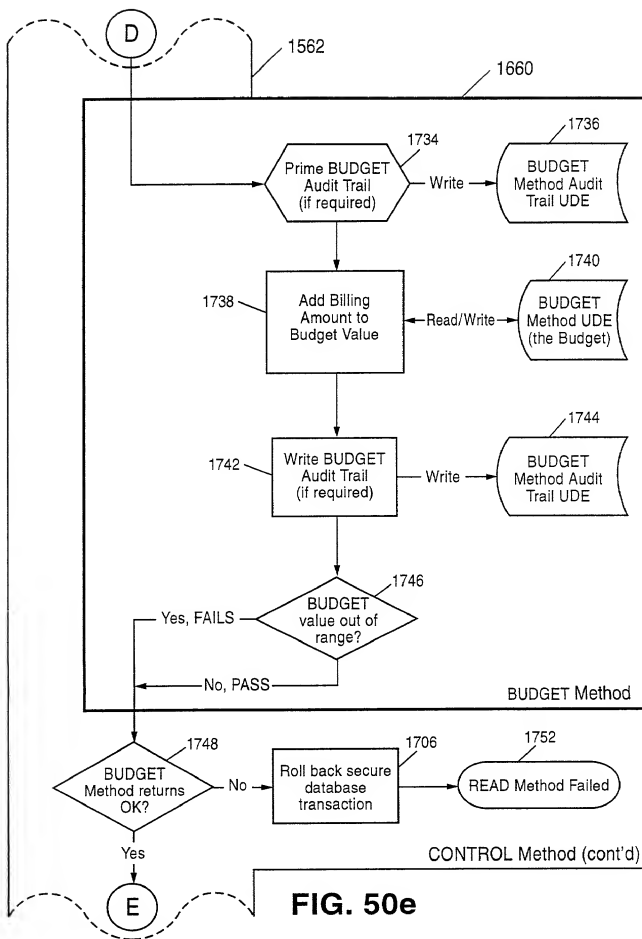
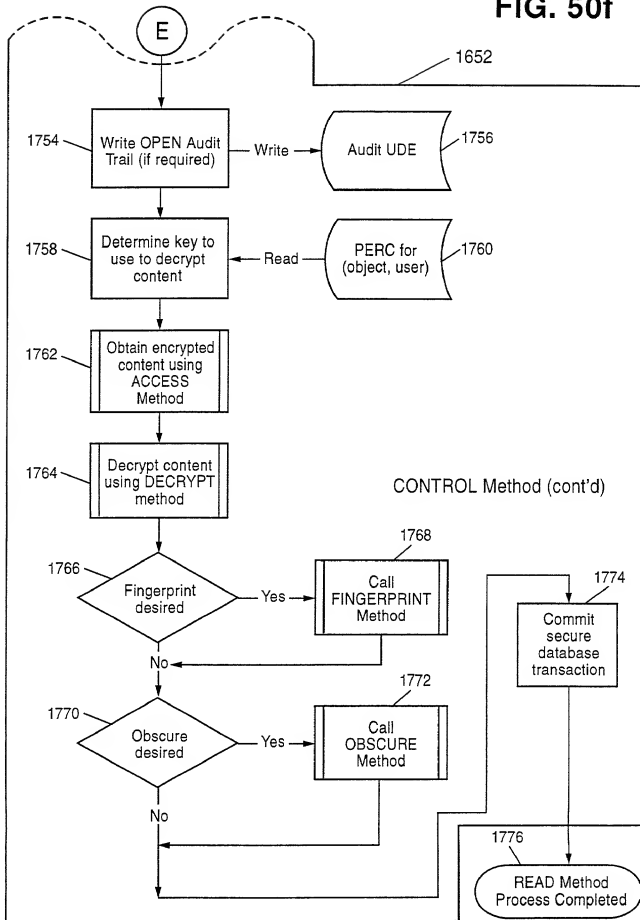
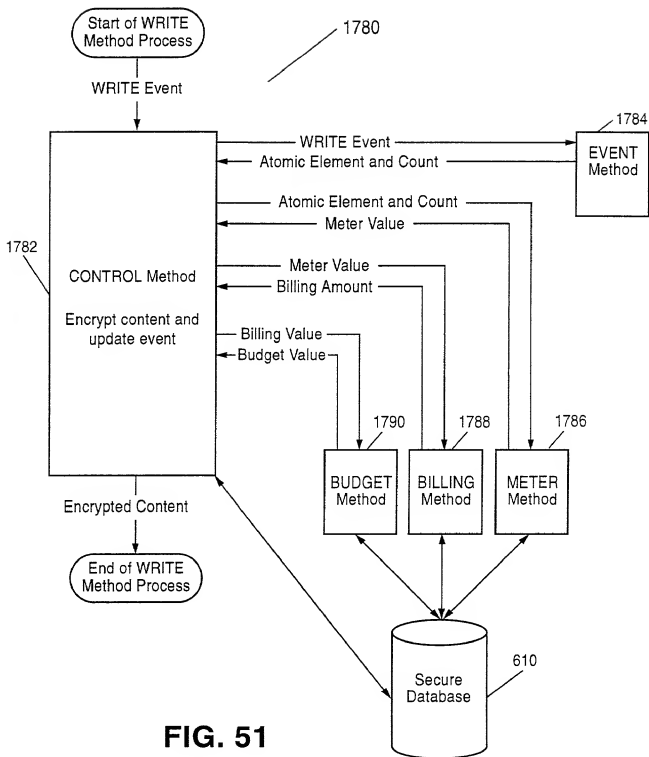


FIG. 50e

FIG. 50f



00870801-000501



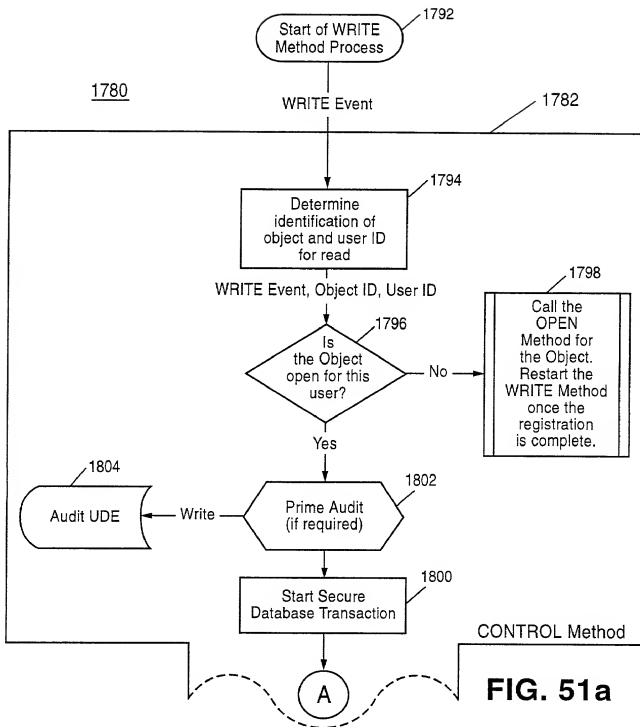


FIG. 51a

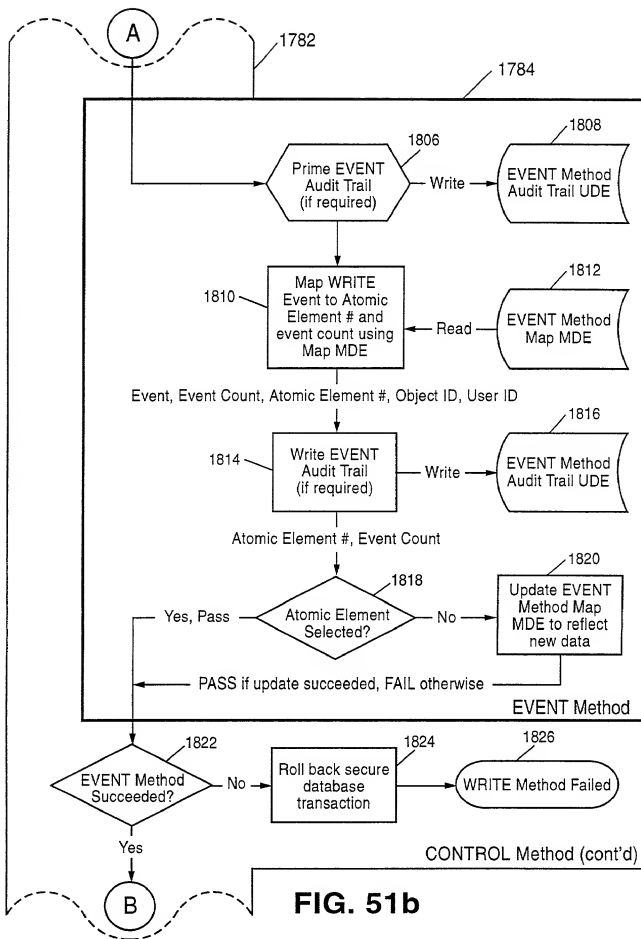


FIG. 51c

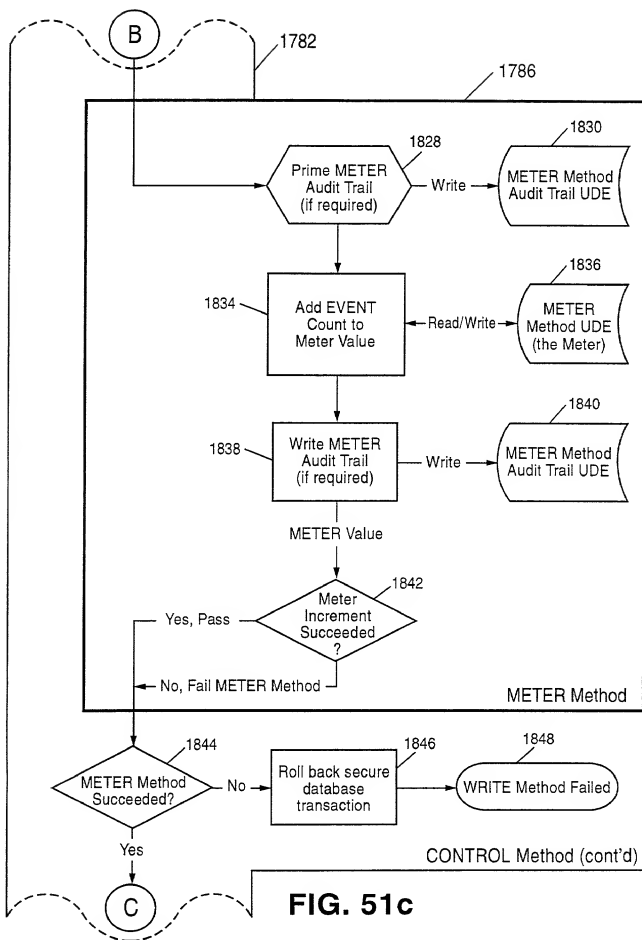


FIG. 51c

```

    graph TD
      C((C)) --> 1782
      1782 --> 1850{{Prime BILLING Audit Trail (if required)}}
      1850 -- Write --> 1852[BILLING Method Audit Trail UDE]
      1850 --> 1854[Map Atomic Element #, Count, and Meter Value to Billing Amount using Map MDE]
      1856[BILLING Method Map MDE (Price list)] -- Read --> 1854
      1854 -- Billing Amount --> 1858[Write BILLING Audit Trail (if required)]
      1858 -- Write --> 1860[BILLING Method Audit Trail UDE]
      1858 -- Billing Amount --> 1862{Billing Amount Selected?}
      1862 -- "Yes, Pass" --> 1864{BILLING Method Succeeded?}
      1862 -- "No, Fail BILLING Method" --> 1864
      1864 -- No --> 1866[Roll back secure database transaction]
      1866 --> 1868([WRITE Method Failed])
      1864 -- Yes --> D((D))
      D --> 1788
      1788 --> 1782
  
```

FIG. 51d

FIG. 51d

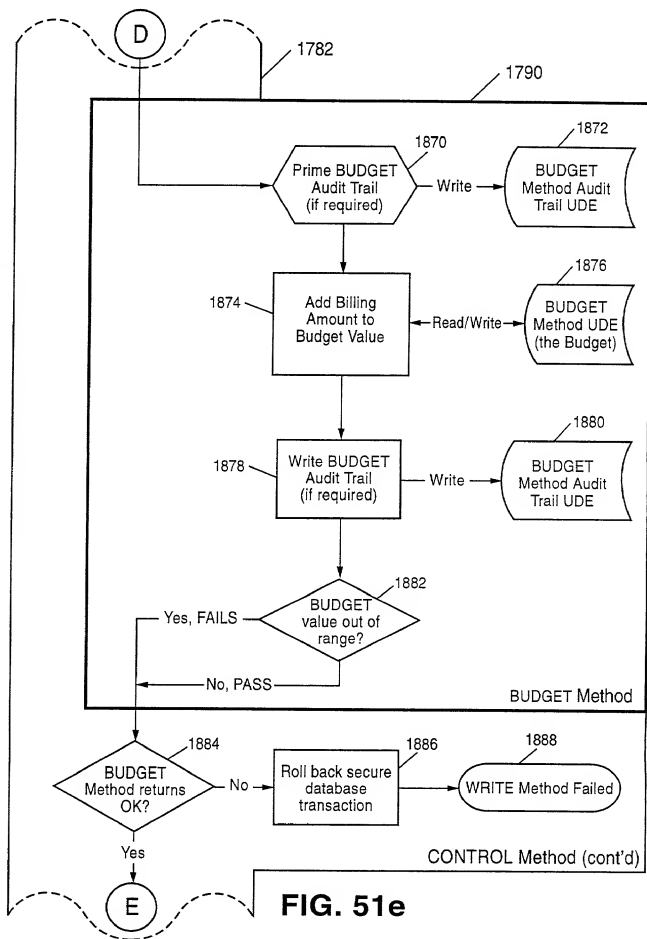
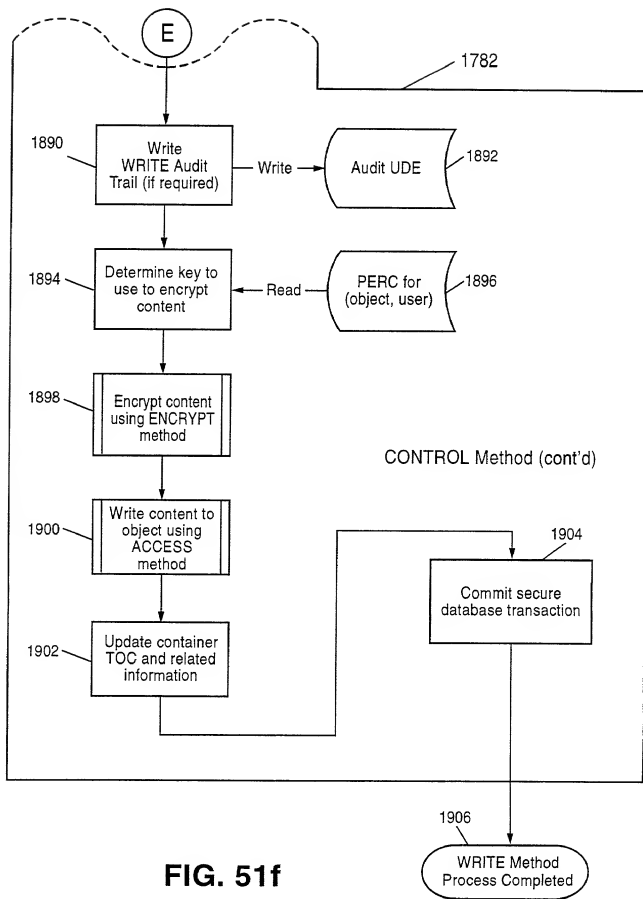


FIG. 51e



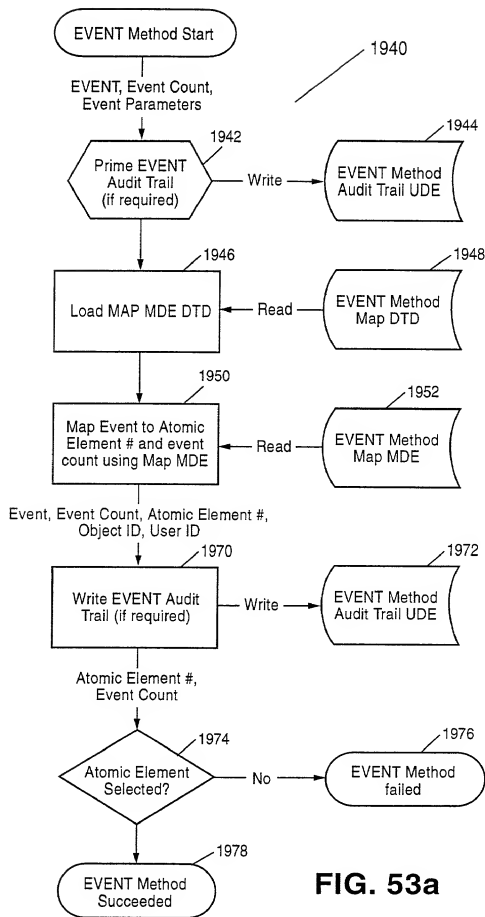


FIG. 53a

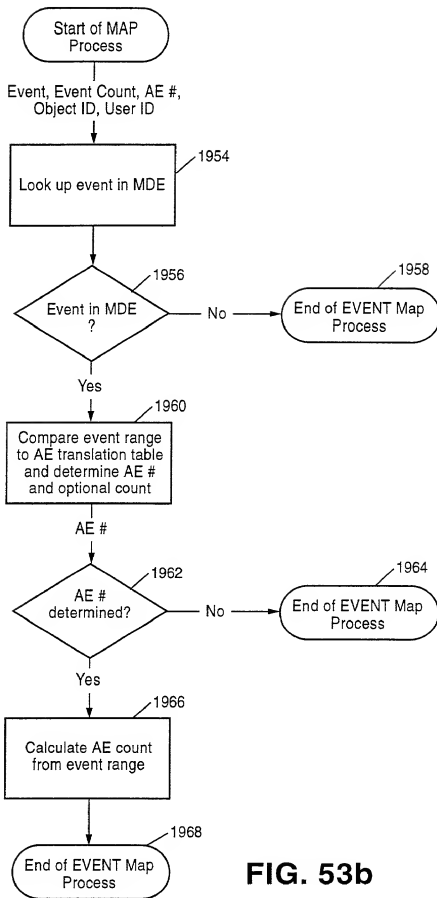


FIG. 53b

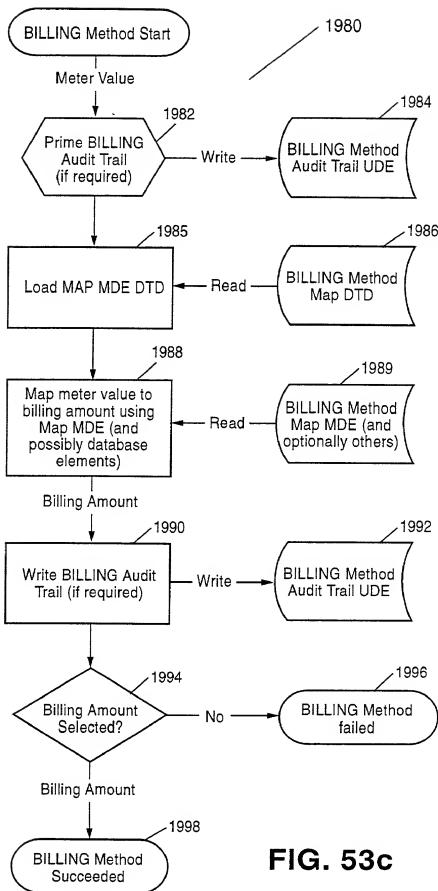


FIG. 53c

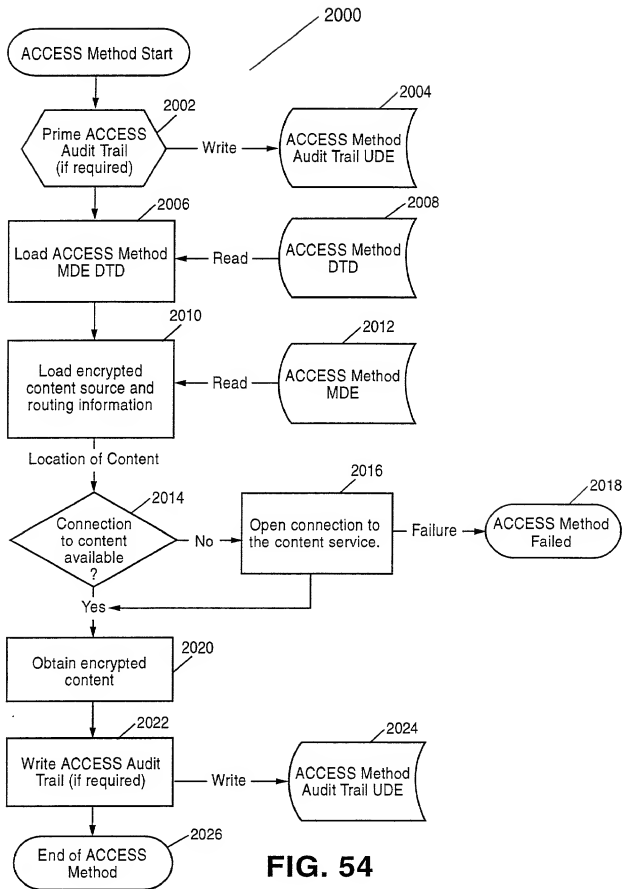


FIG. 54

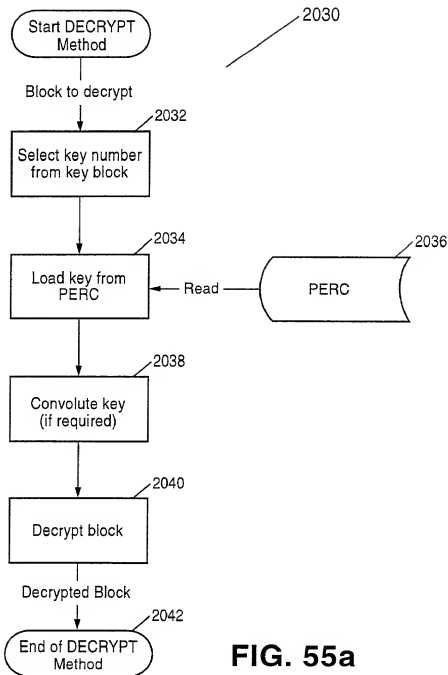


FIG. 55a

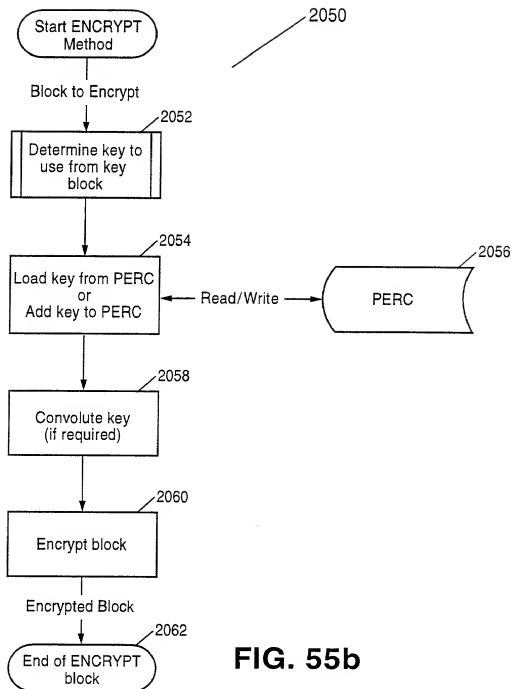


FIG. 55b

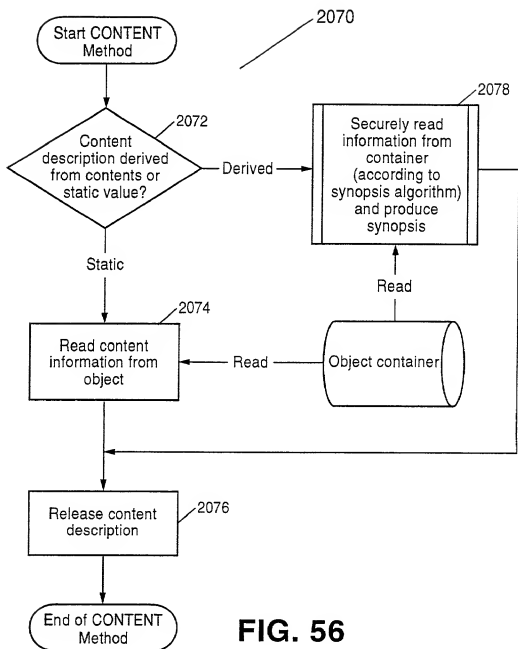


FIG. 56

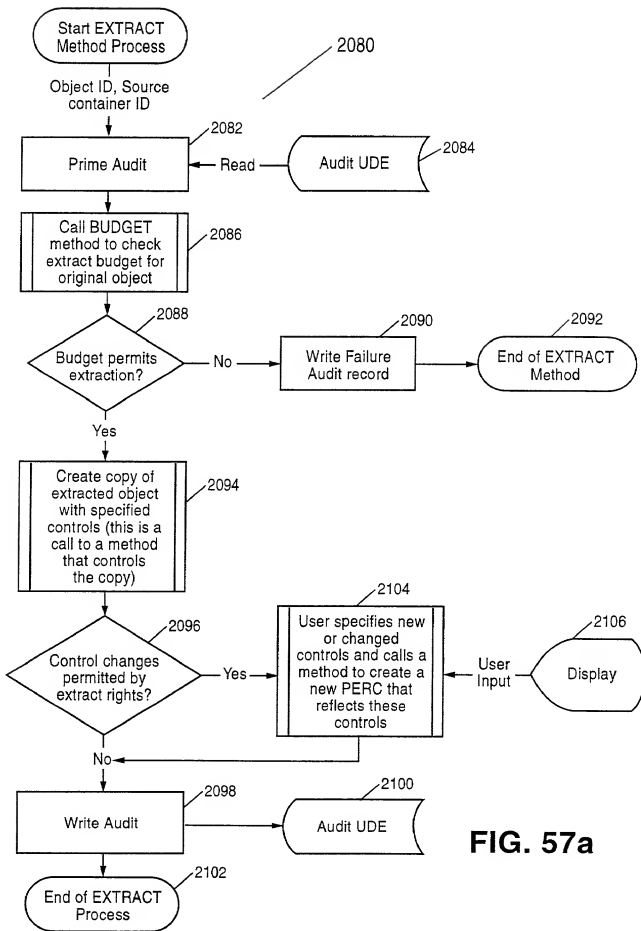


FIG. 57a

Start EMBED
Method Process

Object ID, Destination
container ID

Prime Audit

2112

Write

Audit UDE

2114

Call BUDGET
method to check
embed budget for
destination object

2116

Budget permits
embedding?

2118

No

Write Failure
Audit record

2120

End of EMBED
Method

2122

Yes

Write object into
destination
container, abstracting
controls (calling a
method to abstract or
change the controls)

2124

Control changes
permitted by
embed rights?

2126

Yes

User specifies new
or changed
controls and calls a
method to create a
new PERC that
reflects these
controls

2128

User
Input

Display

2130

No

Write Audit

2132

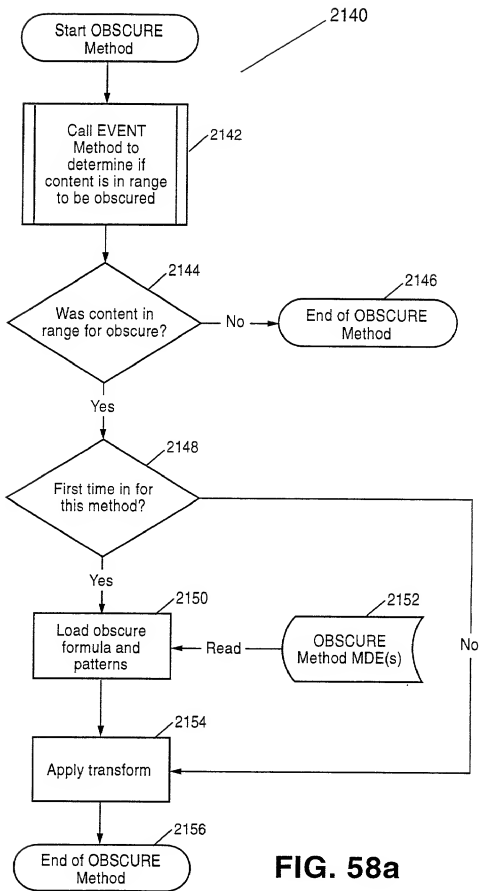
Audit UDE

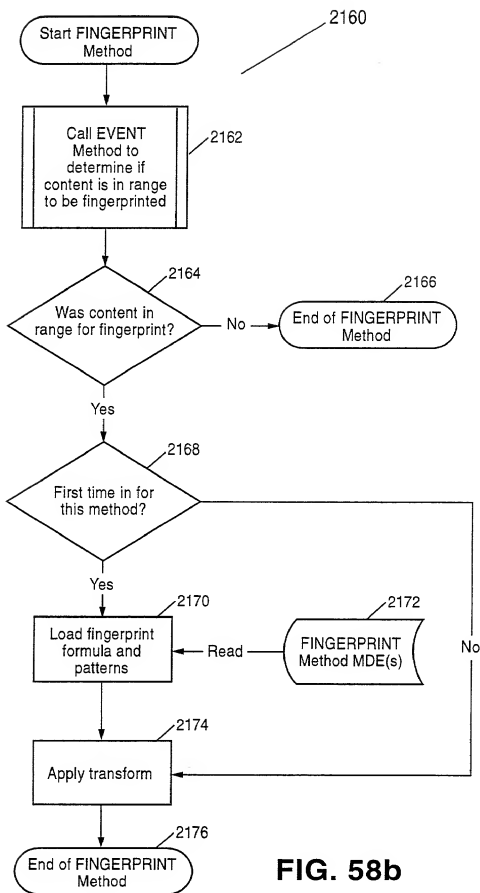
2134

End of EMBED
Process

2136

FIG. 57b





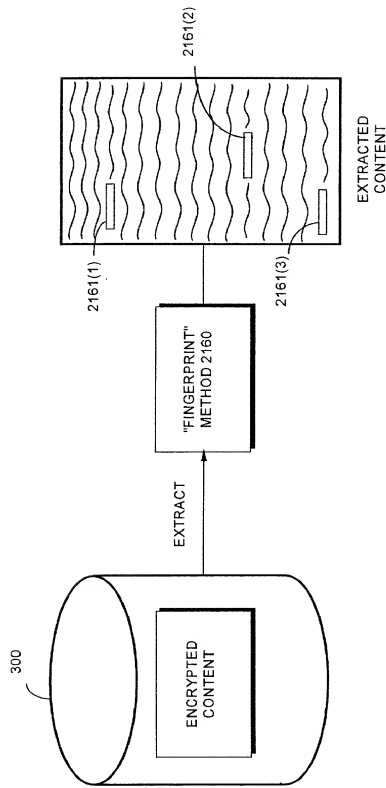
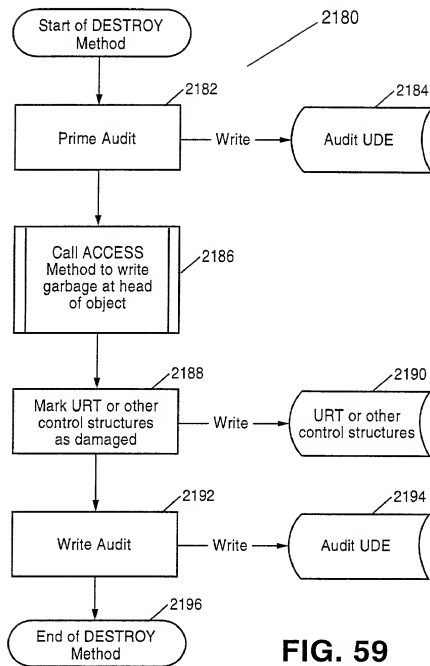


FIG. 58C



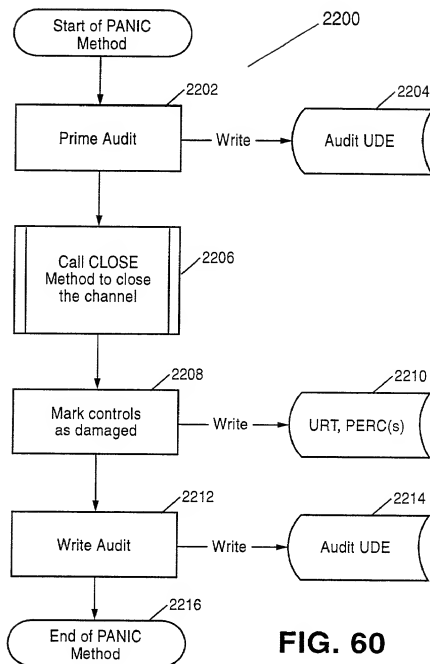


FIG. 60

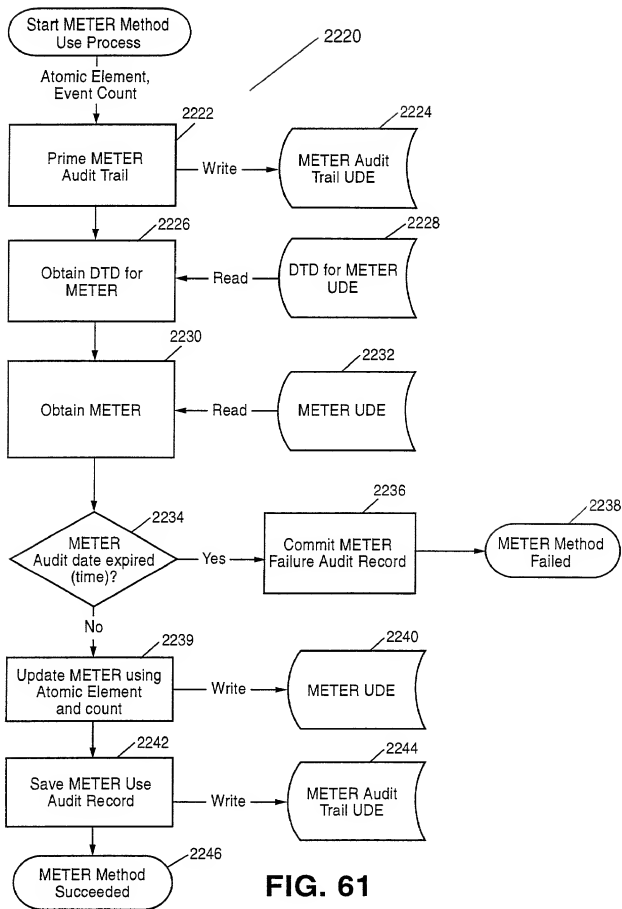
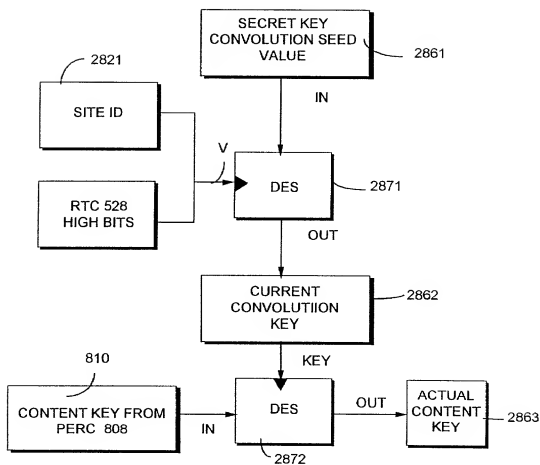


FIG. 61

FIG. 62



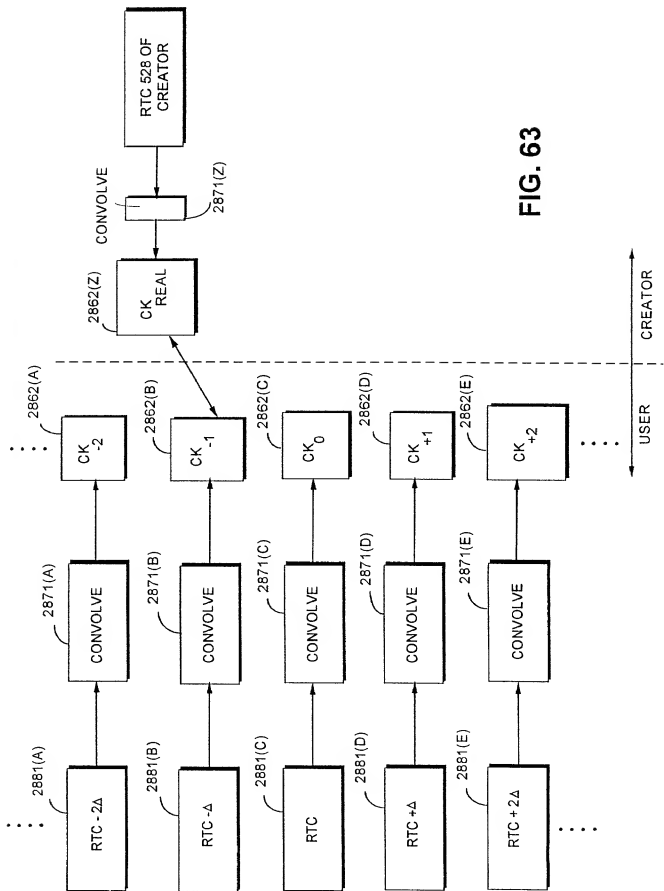


FIG. 63

FIG. 64

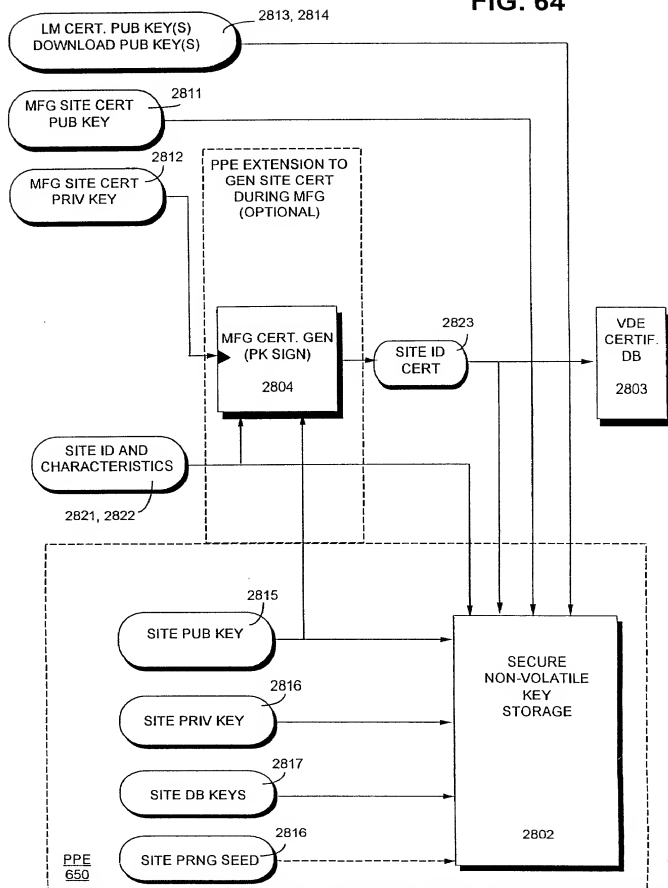


FIG. 65

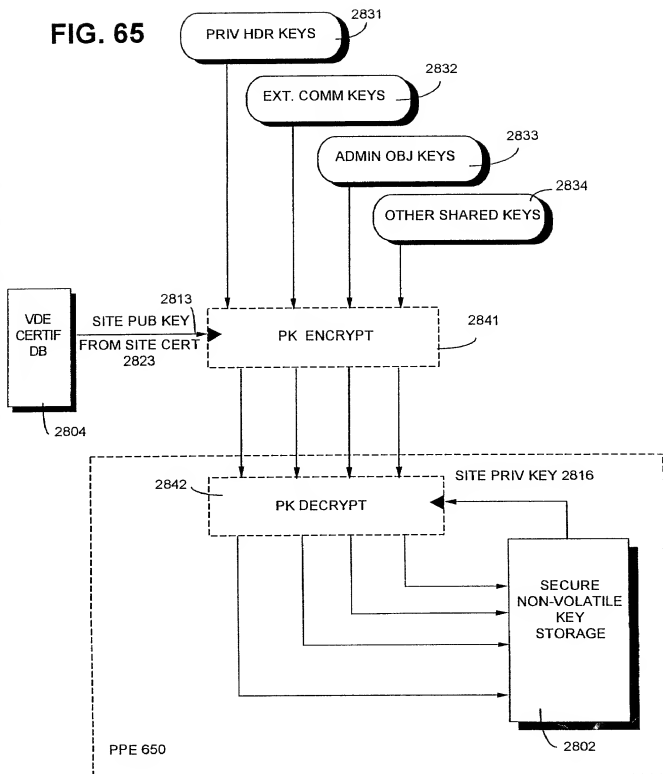
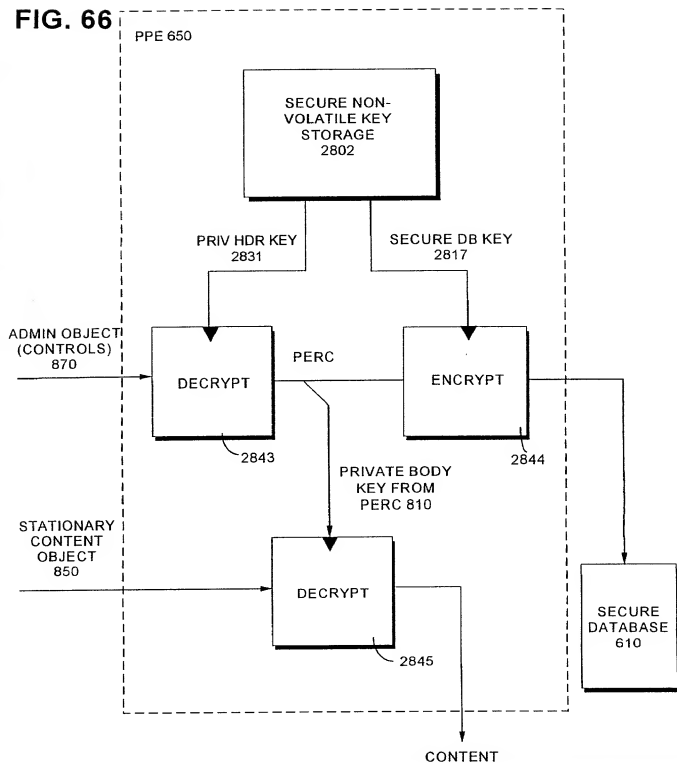


FIG. 66



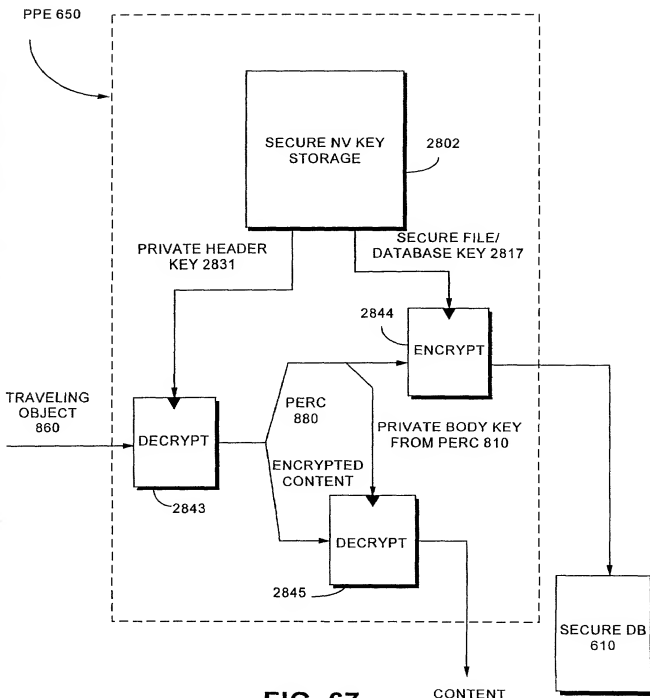


FIG. 67

FIG. 68

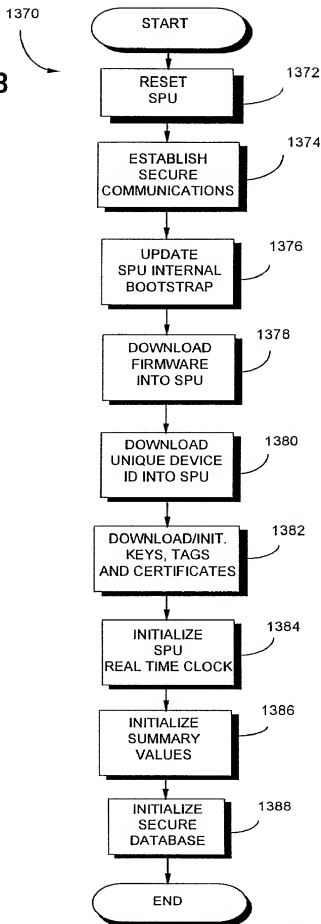
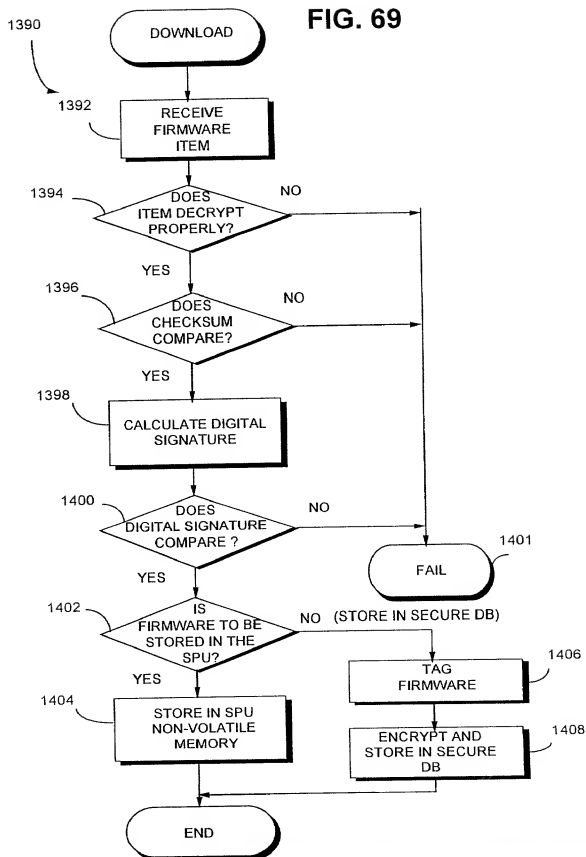


FIG. 69



00500-10002500

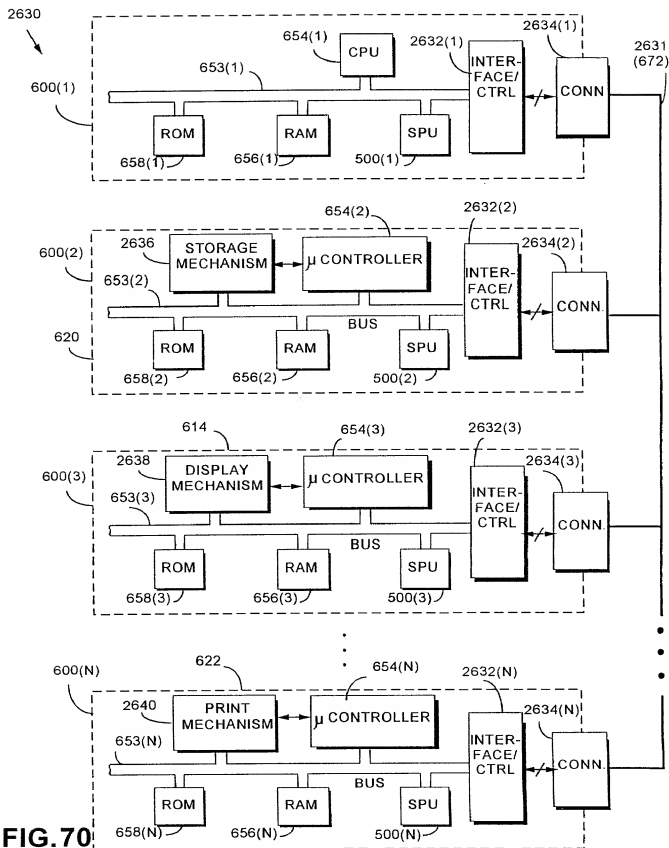
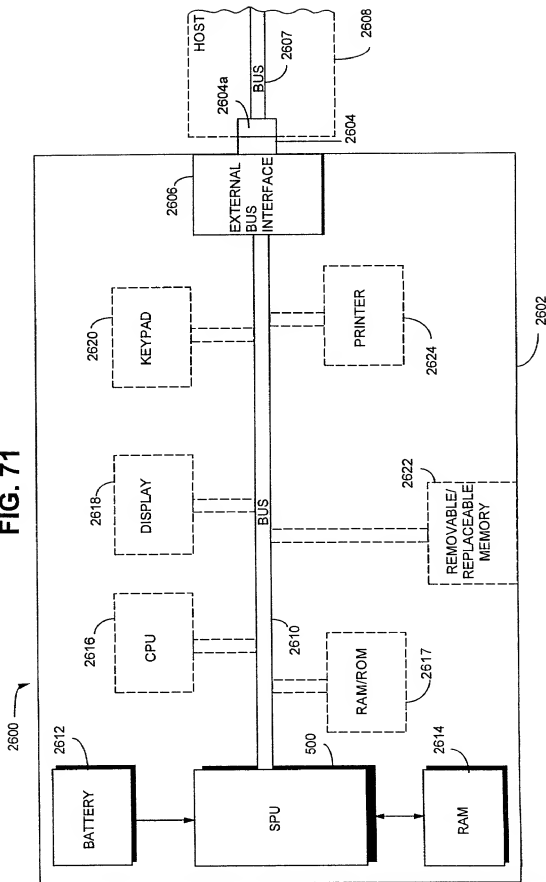


FIG. 70

FIG. 71



LOG IN USER INTERFACE

182

A screenshot of a log-in user interface. It features a rectangular box with a black border. Inside, on the left, are two input fields: the first is labeled "USER NAME:" and contains the text "SHEAR, V."; the second is labeled "PASSWORD:" and contains six asterisks. Below these is a checkbox labeled "LOGIN AT STARTUP". On the right side of the box are three buttons stacked vertically: "LOGIN", "CANCEL", and "HELP". A curved arrow points from the label "LOG IN USER INTERFACE" to the top-left corner of the box. Another curved arrow points from the number "182" to the top-right corner of the box.

FIG. 72A

FIG. 72B

A screenshot of a confirmation dialog box. It has a black border and contains the following elements: a warning triangle icon with an exclamation mark on the left; the text "YOU HAVE REQUESTED THESE PROPERTIES:" in the center; the text "LOONEY TUNES NEWS!" below it; a "PROPERTY INFO" button at the bottom left; a "Your Cost: \$7.50" label at the bottom center; a "MORE OPTIONS" button at the bottom right with a small musical note icon; and three buttons on the right side: "CANCEL", "APPROVE", and "SUSPEND". A curved arrow points from the number "2660" to the "CANCEL" button. Another curved arrow points from the number "2662" to the "APPROVE" button. A third curved arrow points from the number "2664" to the "MORE OPTIONS" button.

FIG. 72C

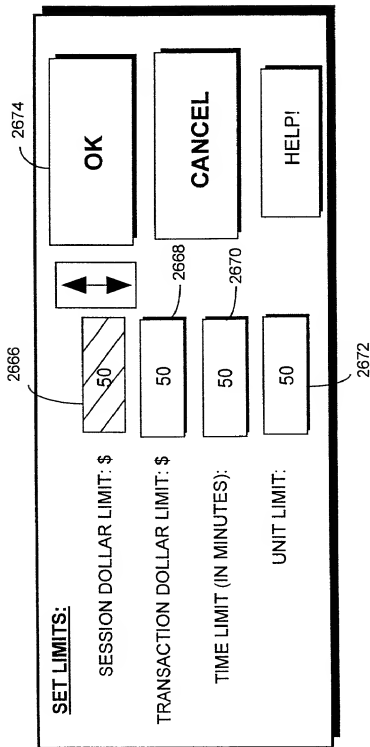



FIG. 72D



YOU HAVE REQUESTED THESE PROPERTIES:

LOONEY TUNE NEWS!

YOUR COST : \$7.50

PROPERTY INFO

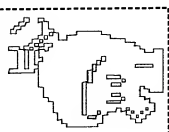
More Options ☒

Show Thumbnail

CANCEL

APPROVE

SUSPEND



PROPERTY:	SIZE:	PUBLISHER:	AMOUNT:	UNITS:	COST/UNIT:	TYPE:	USE?:	LINKS:	HIST:
CHUCK JONES BIOGRA...	256KB	WARNER NEW MEDIA	64	KBYTE	\$1.25	PREVIEW	✓		●
▼ BUGS BUNNY.JPE...	1MB	WARNER NEW MEDIA	1	RECORD	\$5.00	DISPLAY	✓		●
BUGS BUNNY.JPEG...	1MB	WARNER NEW MEDIA	10	RECORD	\$3.50	DISPLAY			●
BUGS BUNNY.JPEG...	1MB	WARNER NEW MEDIA	25	RECORD	\$2.50	DISPLAY			●
FRIZ FRELENG BIOGRA...	256KB	WARNER NEW MEDIA	120	SECTOR	\$5.00	PRINT			
TEX AVERY BIOGRAP...	256KB	WARNER NEW MEDIA	50	PERCENT	\$2.50	COPY			
► DUCKI RABBITI DU...	64MB	WARNER NEW MEDIA	7.0	MINUTE	\$7.50	COPY-PRO			
MEL BLANC BIOGRAPH...	256KB	WARNER NEW MEDIA	1	SPECIAL	\$25.25	INSTALL			
LOONEY TUNES DATAB...	600MB	WARNER NEW MEDIA	1	OBJECT	\$2000.00	ALL			●

SET LIMITS...

SHOW BUDGETS

ACQUIRE BUDGET...

HISTORY...

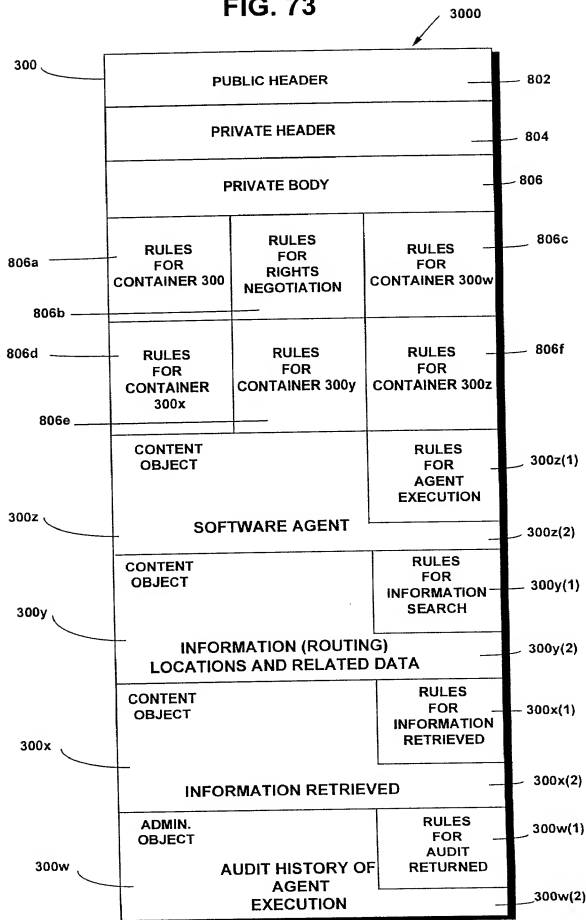
TRANSFER...

PREFERENCES...

FEEDBACK...

HELP!

FIG. 73



10570001 000000

FIG. 74

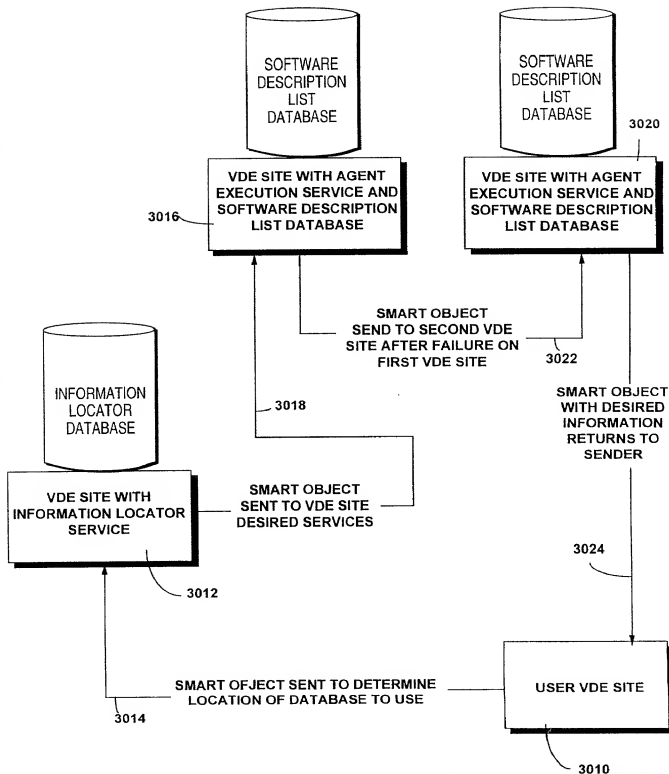


FIG. 75A

PERC HEADER		CSO		PRIVATE BODY KEYS	
USE RIGHT HDR		CSR		KEYS	
PERMITTED CONTROL SET (USE W/O INFO. PASSBACK)			CONTROL METHOD (VENDING)		
REQUIRED METHOD, BUDGET					
METHOD OPTION: VISA		METHOD OPTION: MASTERCARD		METHOD OPTION: AMEX	
REQUIRED METHOD, BILLING (\$100 FIXED, ONE TIME)					
DESIRED CONTROL SET (USE WITH INFO. PASSBACK)			CONTROL METHOD (VENDING WITH "RESPONSE CARD")		
REQUIRED METHOD, BUDGET					
METHOD OPTION: VISA		METHOD OPTION: MASTERCARD		METHOD OPTION: AMEX	
REQUIRED METHOD, AUDIT (COLLECTION PERSONAL INFORMATION)					
REQUIRED FIELDS		DESIRED FIELDS			
REQUIRED METHOD, BILLING (\$25 FIXED, ONE TIME)					

10500-1000/800

FIG. 75B

PERC HEADER		CSO	PRIVATE BODY KEYS
3127	USE RIGHT HDR	CSR	KEYS
CSR			
DESIRED METHOD, BUDGET			
METHOD OPTION: VISA		DESIRED UDE: MYVISABUDGET	
REQUIRED METHOD, BILLING (<\$150 FIXED, ONE TIME)			
DESIRED CONTROL SET (USE WITH INFO. PASSBACK)		CONTROL METHOD (VENDING WITH "RESPONSE CARD")	
REQUIRED METHOD, AUDIT (COLLECTION PERSONAL INFORMATION)			
PERMITTED FIELDS			
REQUIRED METHOD, BILLING (<\$30, FIXED, ONE TIME)			
PERMITTED CONTROL SET (USE W/O INFO PASSBACK)		CONTROL METHOD (VENDING)	

10500 1000000

FIG. 75C

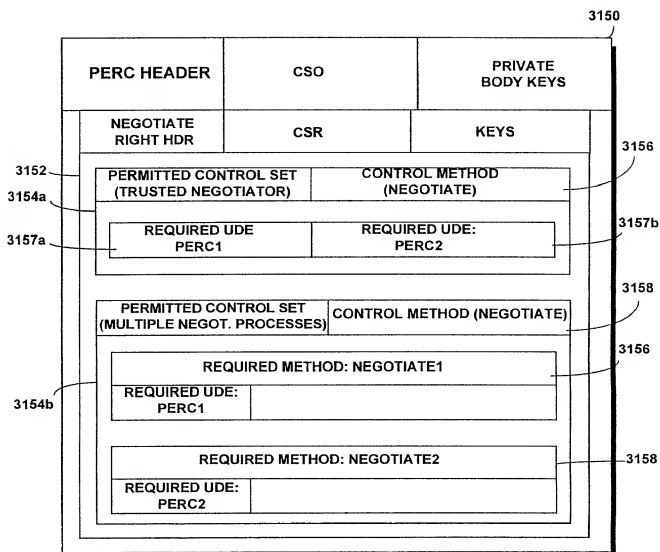


FIG. 75D

URT HEADER		CSO	DIGITAL SIGNATURE
USE RIGHT HDR		CSR	
CONTROL SET(USE WITH INFO. PASSBACK)		CONTROL METHOD(VENDING WITH "RESPONSE CARD")	
REQUIRED METHOD, BUDGET			
METHOD OPTION: VISA		DESIRED UDE: MYVISABUDGET	
REQUIRED METHOD, AUDIT (COLLECTION PERSONAL INFORMATION)			
PERMITTED FIELDS			
REQUIRED METHOD, BILLING(\$25, FIXED, ONE TIME)			

3160

3162

3164

3166

3170

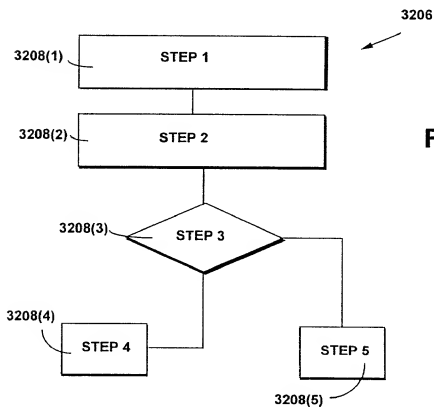
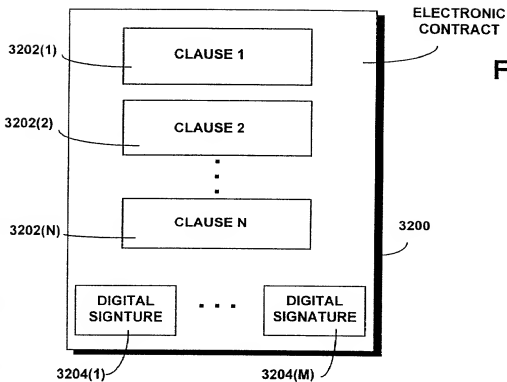


Figure 1

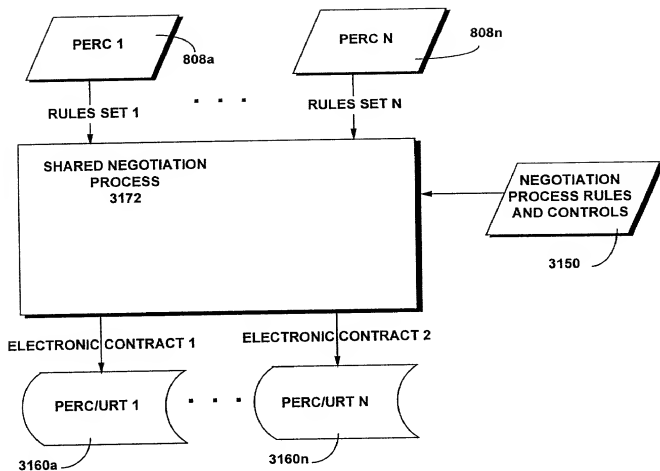
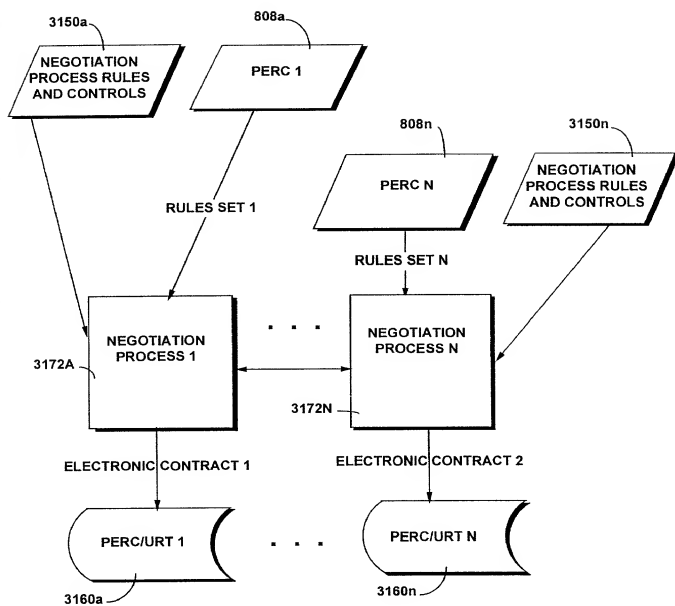


FIG. 76B



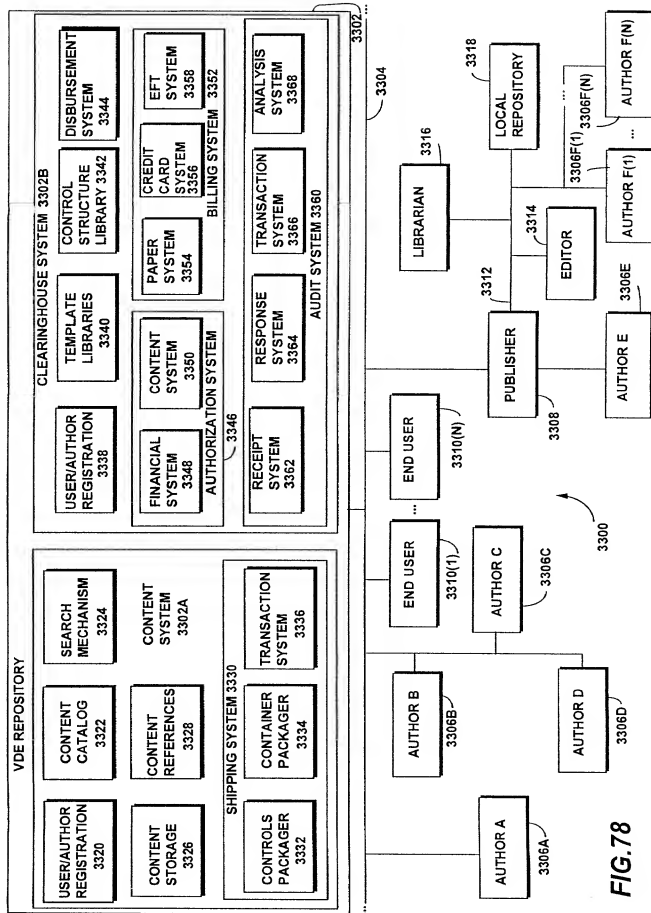


FIG.78

FIG. 80

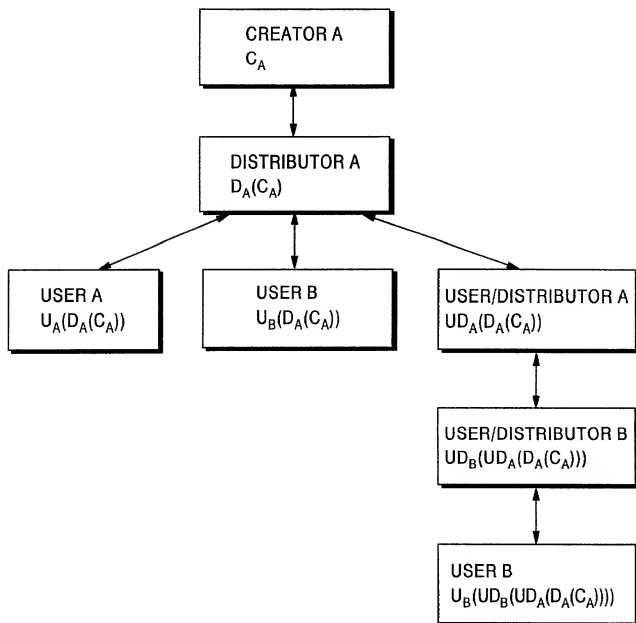


FIG. 81

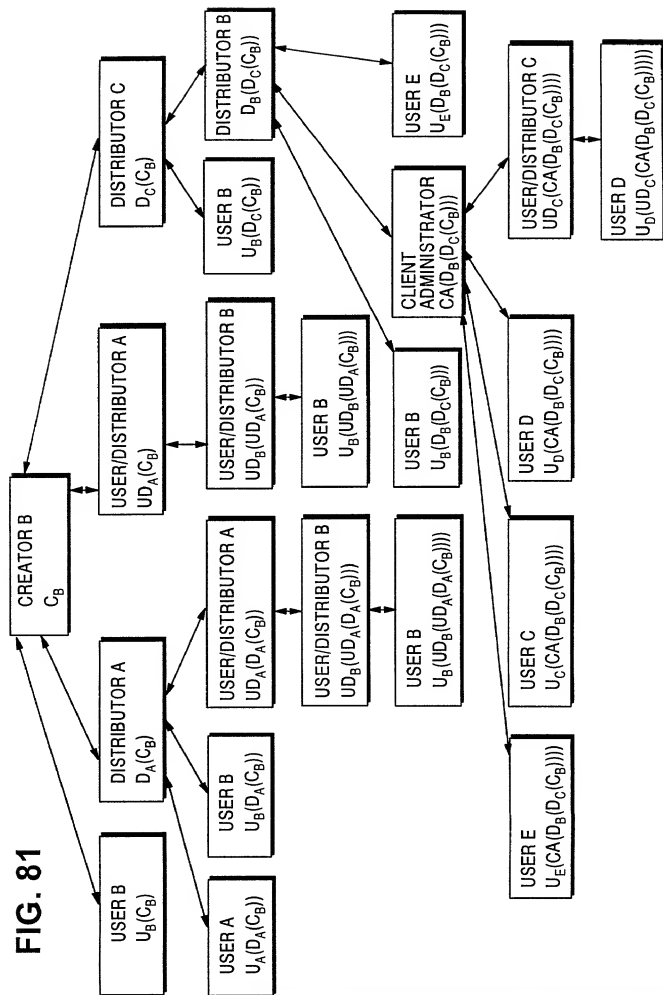


FIG. 83

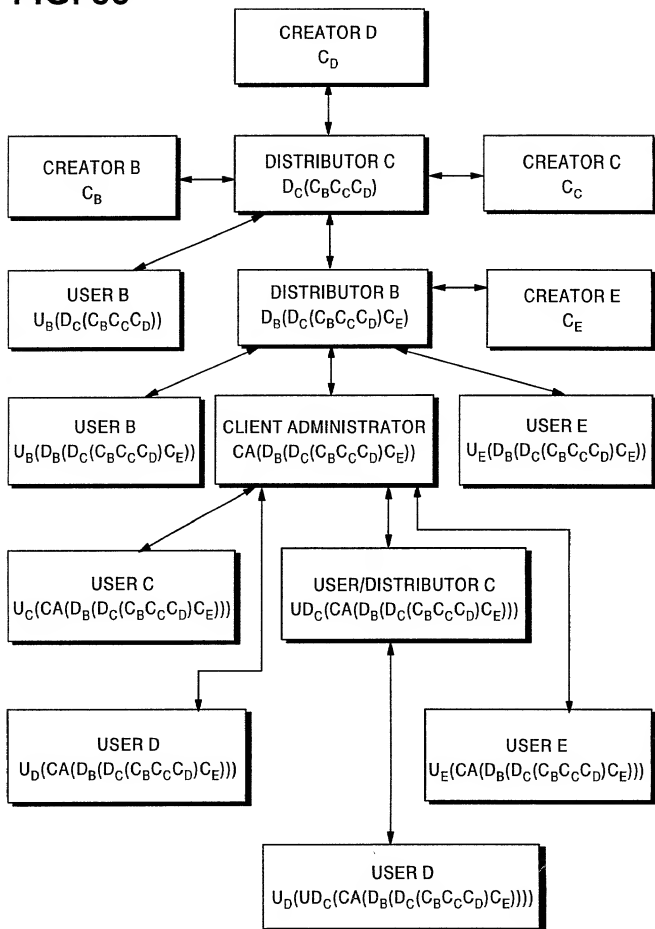


FIG. 84

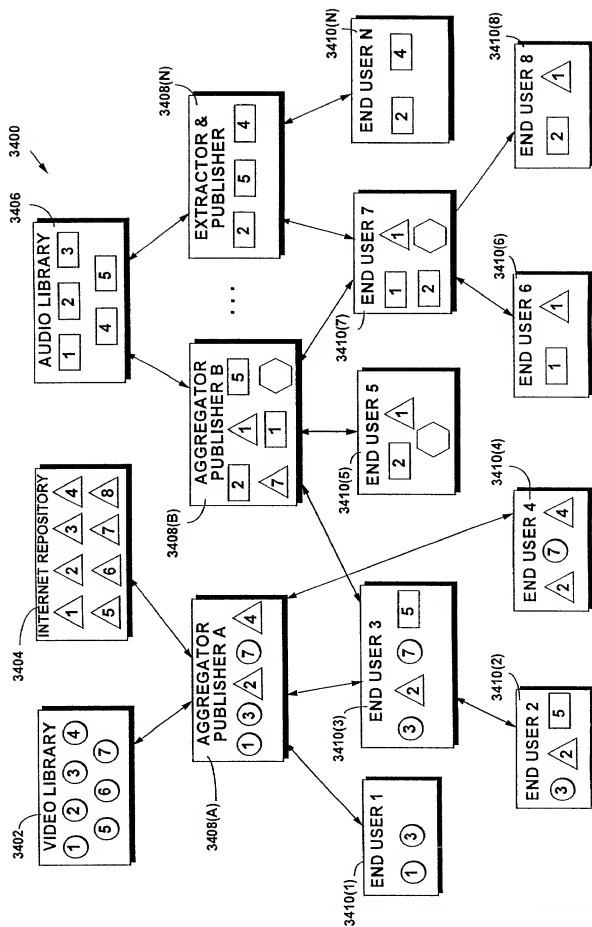


FIG. 85

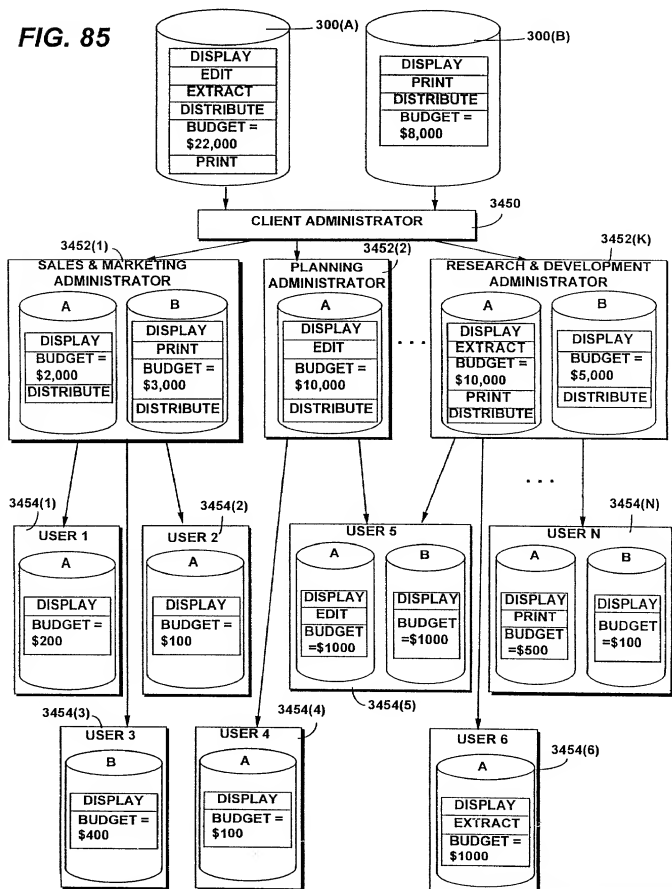


FIG. 86

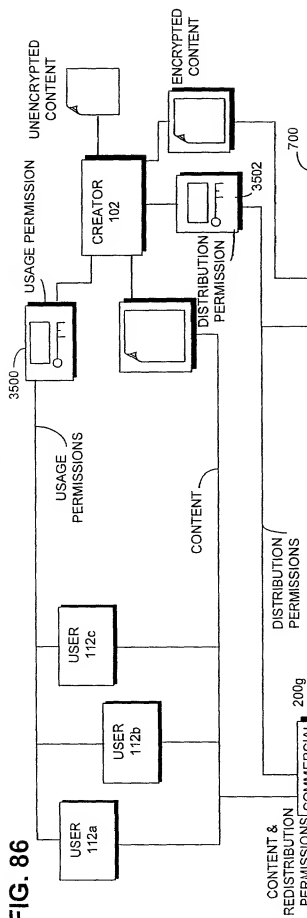


FIG. 86A

